

## DREDGED MATERIAL RESEARCH PROGRAM



MISCELLANEOUS PAPER D-78-7

# ANNOTATED TABLES OF VEGETATION GROWING ON DREDGED MATERIAL THROUGHOUT THE UNITED STATES

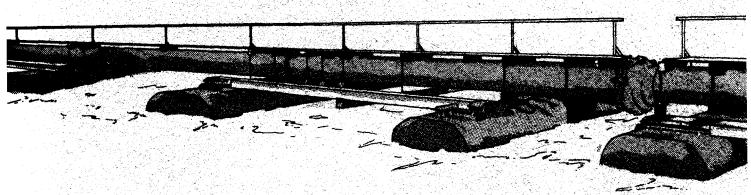
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December 1978 Final Report

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Prepared for Office, Chief of Engineers, U. S. Army Washington, D. C. 20314

Under DMRP Work Unit No. 4F05

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#### DEPARTMENT OF THE ARMY

#### WATERWAYS EXPERIMENT STATION, CORPS OF ENGINEERS

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15 March 1979

SUBJECT: Transmittal of Miscellaneous Paper D-78-7

TO: All Report Recipients

- The miscellaneous paper transmitted herewith contains the results of one of the research efforts (work units) of the Corps of Engineers' Dredged Material Research Program (DMRP). This study was conducted under the direction of the Habitat Development Project (HDP) of the DMRP. The HDP had as its main objectives the development of wetland and upland habitats on dredged material and the evaluation of the impact of disposal in shallow water and upland sites.
- This report, "Annotated Tables of Vegetation Growing on Dredged Material Throughout the United States," (Work Unit 4F05) presents a listing of plant species found on 202 dredged material islands and nearshore disposal sites during the course of the DMRP. Tabular material is presented by common and scientific name for 1120 species, and information is provided regarding the propagation of selected species.
- The material presented in this report provides a rapid reference to the wide variety of plant species found growing voluntarily on dredged material. The natural occurrence of such species on dredged material is useful information in the selection of plant species for use in habitat development.

JOHN L. CANNON

Colonel, Corps of Engineers

Commander and Director

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This document presents data collected on the vegetation of dredged material islands and sites in Corps of Engineer-maintained waterways throughout the United States. More than 2000 dredged material islands and numerous dredged material sites have been built in the past 100 years; 202 of these were intensively sampled and all vegetation recorded, identified, and/or collected as voucher specimens.

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#### 20. ABSTRACT (Continued).

Six tables present the following data:

- $\underline{\mathtt{a}}.$  An anotated listing by common name of 1120 plant species occurring on dredged material.
- <u>b.</u> A selection of 361 upland and high marsh plant species and 115 wetland plant species that may be planted on dredged material for wildlife habitat enhancement and/or substrate stabilization.
- c. Matrixes of the 361 upland and the 115 wetland plant species.
- <u>d</u>. An alphabetical group listing by scientific name and authority of the 1120 plant species occurring on dredged material.

These data were prepared to provide managers with data pertinent to planned plant establishment on wetland and upland dredged material islands and sites throughout the United States.

#### Preface

This report was written as part of Task 4F, "Island Habitat Development," of the Habitat Development Project (HDP), Dredged Material Research Program (DMRP). The DMRP was sponsored by the Office, Chief of Engineers, U. S. Army, and was assigned to the Environmental Laboratory (EL) of the U. S. Army Engineer Waterways Experiment Station (WES), Vicksburg, Miss.

Manager of Task 4F was Ms. Mary C. Landin, who prepared this report. Work progressed under the general supervision of Dr. H. K. Smith, Manager of the HDP, Dr. Roger T. Saucier, Special Assistant for Dredged Material Research, and Dr. John Harrison, Chief, EL.

Director of WES during the preparation of this report was COL John L. Cannon, CE. Technical Director was Mr. F. R. Brown.

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### ANNOTATED TABLES OF VEGETATION GROWING ON DREDGED MATERIAL THROUGHOUT THE UNITED STATES

#### Background

- 1. This document presents data collected on the vegetation of dredged material islands and sites in Corps of Engineer-maintained water-ways throughout the United States. These data were collected as part of the Habitat Development Project research in the Dredged Material Research Program (DMRP). More than 2000 dredged material islands and numerous dredged material sites have been built in the past 100 years; 202 of these were intensively sampled and all vegetation recorded, identified, and/or collected as voucher specimens.
- 2. Vegetation plays a key role in the ability of wildlife to utilize any habitat, and dredged material habitat is no exception. Efforts to determine what vegetation is present, its use by wildlife, its role in site stabilization, and the rates of colonization and succession of vegetation on these areas have been made by the DMRP in order to better understand management needs of the dredged material islands and sites. Islands were found to be of importance, and indeed critical habitat in many instances, to a unique group of wildlife species, the colonial nesting sea and wading birds (pelicans, cormorants, herons, egrets, ibises, spoonbills, gulls, terns, and skimmers) (Soots and Landin 1978). Islands and other dredged material sites are also utilized by many waterfowl, shorebird, songbird, raptor, reptile, rodent, small mammal, and invertebrate species as well.
- 3. Over 1000 dredged material islands and sites were covered by aerial surveys to determine wildlife use, and islands with and without intensive wildlife use (such as by bird colonies) were selected for detailed scrutiny. Many factors were found to be influencing colonization and succession rates of vegetation on the islands and sites selected:
  - a. Location in the waterway.
  - b. Island or site size and configuration.
  - c. Island height and gradient.

- d. Plant propagule sources.
  - (1) Existing on the site.
  - (2) On adjacent or nearby locations.
- e. Wildlife and human utilization of the island or site.
- f. Salinity.
- g. Currents, waves, and tidal actions.
- h. Climate.
  - (1) Rainfall.
  - (2) Day length (photoperiods).
  - (3) Temperature (thermoperiods).

#### Explanation of Tables

- 4. With the exception of the marsh plant species tables, the tables in this report are presented by growth habit groups: ferns and their allies, grasses, aquatic and low marsh plants not included elsewhere, herbs, vines, shrubs and small trees, and large trees. Table 1 presents an annotated listing by common name for easy reference to 1120 plant species occurring on dredged material. Frequency and occurrence are briefly noted. Plant species were found on dredged material in the following areas:
  - a. Connecticut -- 2 islands.
  - b. Florida -- 45 islands.
  - c. Great Lakes -- 23 islands and sites.
  - d. Louisiana -- 1 site.
  - e. Maryland -- 5 sites.
  - f. Mississippi -- 2 islands.
  - g. New Jersey -- 20 islands.
  - h. North Carolina -- 25 islands.
  - i. Pacific Northwest -- 17 islands.
  - j. Texas -- 36 islands.
  - k. Upper Mississippi River -- 26 islands and sites.
- 5. Table 2 presents a selection of 361 upland and high marsh plant species that may be planted on dredged material for wildlife habitat enhancement and substrate stabilization. Table 3 presents a matrix of

upland plants based on the same 361 species. Certain pertinent information for the manager is presented, such as best propagule types and propagule collection periods, temporary storage requirements, and planting periods. Also presented are species range, heights, growth habits, wild-life value, salinity tolerances, and pertinent remarks concerning cultivation value, pest species, and habitat occupation. The species occurring on dredged material are noted as well as their availability from commercial sources. Plant species were selected based on their food, cover, and breeding value for wildlife, and for stabilization of substrate.

- 6. Tables 4 and 5 present pertinent information beneficial to site planners in wetlands habitats. Recommended propagules, planting and storage techniques, ranges, soil tolerances, moisture requirements, wildlife value, nuisance potential, and soil stabilization abilities are given, as well as pertinent remarks concerning individual values and benefits to be derived from each species. A total of 115 species are listed and were selected for their ability to grow on wetlands sites including dredged material, their stabilization ability, and their wildlife value. Many other species have potential use on dredged material but are not given because growth and survival on dredged material are not known.
- 7. Table 6 presents an alphabetical, grouped listing by scientific name and authority of the 1120 species occurring on dredged material for quick botanical reference.
- 8. These data were prepared to provide managers with data pertinent to planned plant establishment on wetland and upland dredged material islands and sites throughout the United States. The reader is referred to Coastal Zone Resources Division (CZRD) (1978), Environmental Laboratory (1978), Hunt et al. (1978), and Soots and Landin (1978) for more detailed discussion and information concerning specific habitat recommendations.
- 9. Published sources of plant species lists used in this report are DMRP reports by Chaney et al. (1978), Coastal Zone Resources Corporation (CZRC) (1977), Lewis and Lewis (1978), McCaffrey and Buckley (1978), Parnell et al. (1978), Peters et al. (1978), Scharf et al. (1978), Thompson and Landin (1978), and Ziegler and Sohmer (1977). Other species listed are from the author's unpublished data and observations.

#### References

- Adams, D. A. 1963. Factors influencing vascular plant zonation in North Carolina salt marshes. Ecology 44(3):445-456.
- Barbour, M. G. and C. B. Davis. 1970. Salt tolerance of five California salt marsh plants. Amer. Midl. Nat. 84:263-265.
- Britton, N. and A. Brown. 1970. An illustrated flora of the northern United States and Canada, Vols. I, II, and III. Dover (Reprint) Publishers, New York. 2052 pp.
- Brockman, C. F. 1968. Trees of North America. Western Publishing Company, Racine, Wisc. 280 pp.
- Broome, S. W., W. W. Woodhouse, Jr., and E. D. Seneca. 1973. An investigation of propagation and the mineral nutrition of <u>Spartina alterniflora</u>. NCS-SG-73-14. North Carolina State University Sea Grant Program, Raleigh, N. C.
- Burkhalter, A. P., L. M. Curtis, R. L. Lazor, M. L. Beach, and J. C. Hudson. 1974. Aquatic weed identification and control manual. Florida Department of Natural Resources Misc. Publ. 100 pp.
- Chabreck, R. H. 1970. Marsh zones and vegetative types in the Louisiana coastal marshes. PhD dissertation. Louisiana State University, Baton Rouge, La.
- Coastal Zone Resources Corporation (CZRC). 1977. A comprehensive study of successional patterns of plants and animals at upland disposal areas. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Contract Report D-77-2.
- Coastal Zone Resources Division (CZRD). 1978. Handbook for terrestrial wildlife habitat development on dredged material. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-37.
- Chaney, A. H., B. R. Chapman, J. P. Karges, D. A. Nelson, R. R. Schmidt, and L. C. Thebeau. 1978. The use of dredged material islands by colonial seabirds and wading birds in Texas. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-8.
- Correll, D. S. and M. C. Johnston. 1970. Manual of the vascular plants of Texas. Texas Research Foundation, Renner, Texas. 1881 pp.
- of North America north of Mexico. Pp. 23-51 in R. J. Reimold and W. H. Queen, eds. Ecology of halophytes. Academic Press, New York.
- Environmental Laboratory. 1978. Wetland habitat development with dredged material: Engineering and plant propagation. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report DS-78-16.

- Eyles, D. E. and J. Robertson, Jr. 1963. A guide and key to the aquatic plants of the southeastern United States. U. S. Department of the Interior Circular 158. 151 pp.
- Fassett, N. C. 1960. A manual of aquatic plants. University of Wisc. Press, Madison, Wisc. 405 pp.
- Franklin, J. F. and C. T. Dyrness. 1973. Natural vegetation of Oregon and Washington. USDA Forest Service Technical Report PNW-8.
  417 pp.
- Halls, L. K. 1977. Southern fruit-producing woody plants used by wildlife. USDA Forest Service Technical Report SO-16. 235 pp.
- Harrar, E. S. and J. G. Harrar. 1962. Guide to southern trees. Dover (Reprint) Publishers, New York. 709 pp.
- Harris, S. W. and W. H. Marshall. 1960. Germination and planting experiments on softstem and hardstem bulrush. J. Wildl. Manag. 24:134-139
- Hartman, H. T. and D. E. Kester. 1975. Plant propagation, 3rd edition. Prentiss Hall, Inc. 662 pp.
- Hitchcock, A. S. 1950. Manual of the grasses, Vol I and II. USDA Misc. Publ. No. 200. 1051 pp.
- Hitchcock, C. L. and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press, Seattle, Wash.
- Hotchkiss, N. 1967. Common marsh, underwater, and floating-leaved plants. Dover (Reprint) Publishers, New York. 123 pp.
- Hotchkiss, N. 1970. Common marsh plants of the United States and Canada. U. S. Department of Interior Res. Publ. 93. 99 pp.
- Hunt, L. J., M. C. Landin, A. W. Ford, and B. R. Wells. 1978. Upland habitat development with dredged material: Engineering and plant propagation. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report DS-78-17.
- Kadlec, J. A. and W. A. Wentz. 1974. State-of-the-art survey and evaluation of marsh plant establishment techniques: induced and natural; Volume I: Report of research. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Contract Report D-74-9.
- Landin, M. C. 1978. A selected bibliography of the life requirements of colonial nesting waterbirds and their relationship to dredged material islands. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Miscellaneous Paper D-78-5.
- Lewis, R. R., III and C. S. Lewis. 1978. Colonial bird use and plant succession on dredged material islands in Florida; Volume II: Patterns of plant succession. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-14.
- Long, R. W. and O. Lakela. 1971. A flora of tropical Florida. University of Miami Press, Coral Gables, Fla. 961 pp.

- Martin, A. C., H. S. Zim, and A. L. Nelson. 1951. American wildlife and plants. McGraw Hill, New York. 500 pp.
- Mason, H. L. 1969. Flora of the marshes of California. University of California Press, Berkeley, Calif. 878 pp.
- McCaffrey, C. A. and F. G. Buckley. 1978. Use of dredged material islands by colonial seabirds and wading birds in New Jersey; Appendix B: Vegetation analysis. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-1.
- Oefinger, S. W., Jr. and L. K. Halls. 1974. Identifying woody plants valuable to wildlife in southern forests. USDA Forest Service Research Paper SO-92. 76 pp.
- Palmisano, A. W. 1972. The effect of salinity on the germination and growth of plants important to wildlife in the Gulf Coast marshes. Ann. Conf. S. E. Assoc. Game and Fish Com. Proc. 25:215-223.
- Parnell, J. F., D. M. Dumond, and R. N. Needham. 1978. A comparison of plant succession and bird utilization on diked and undiked dredged material islands in the North Carolina estuaries. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-9.
- Peters, C. F., K. O. Richter, D. A. Manuwal, and S. G. Herman. 1978. Colonial nesting sea and wading bird use of estuarine islands in the Pacific Northwest. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-17.
- Radford, A. E., H. E. Ahles, and C. R. Bell. 1973. Manual of the vascular flora of the Carolinas. University of North Carolina Press, Chapel Hill, N. C. 1183 pp.
- Rehder, A. 1960. Manual of cultivated trees and shrubs. MacMillan Co., New York. 996 pp.
- Salyer, J. C. 1949. Propagation of wild duck foods. U. S. Fish and Wildlife Service, Wildlife Management Series. 23 pp.
- Sargent, C. S. 1922. Manual of the trees of North America, Vol. I and II. Dover (Reprint) Publishers, New York. 1367 pp.
- Scharf, W. C., G. W. Shugart, and M. L. Chamberlin. 1978. Colonial birds nesting on man-made and natural sites in the U. S. Great Lakes. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-10.
- Seneca, E. D. 1972. Seedling response to salinity in four dune grasses from the Outer Banks of North Carolina. Ecology 53(3):465-471.
- Soots, R. F., Jr. and M. C. Landin. 1978. The development and management of avian habitat on dredged material islands. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report DS-78-18.

- Thompson, D. H. and M. C. Landin. 1978. An aerial survey of waterbird colonies along the upper Mississippi River and their relationship to dredged material deposits. U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-78-13.
- Thompson, W. R., Sr. and W. R. Thompson, Jr. 1974. The pasture book. Oxmoor Press, Birmingham. 322 pp.
- Wolfe, T. K. and M. S. Kipps. 1959. Production of field crops. McGraw Hill, New York. 653 pp.
- Woodhouse, W. W., Jr., E. D. Seneca, and S. W. Broome. 1972. Marsh building with dredge spoil in North Carolina. North Carolina State University Agr. Expt. Station Bulletin 445.
- Ziegler, S. R. and S. H. Sohmer. 1977. The flora of dredged material sites in Navigation Pool 8 of the upper Mississippi River, U. S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report D-77-31.

#### Table 1

## $\frac{\text{Annotated Listing by Common Names of}}{\text{Plant Species}}$ on Dredged Material Islands and Sites

#### FERNS AND THEIR ALLIES

Bracken fern (Pteridium aquilinum). Uncommon, in open areas and thickets.

Christmas fern (<u>Polystichum acrostichoides</u>). Uncommon, in woods and high places.

Feather moss (Eurhynchium oreganum). Uncommon.

Field horsetail (Equisetum arvense). Uncommon to frequent, in sandy areas.

Grape fern (Botrychium neglectum). Uncommon, in grassy woods and low areas.

Hay-scented fern (Dennstaedtia punctilobula). Uncommon, in mixed woodland areas.

Juniper haircap moss (Polytrichum juniperinum). Uncommon.

Lady fern (<u>Athyrium filix-femina</u>). Uncommon, in grassy woods and low areas.

Licorice fern (Polypodium glycyrrhiza). Uncommon on trees.

Little shaggy moss (Rhytidiadelphus loreus). Uncommon.

Maiden hair fern (Polypodium vulgare). Uncommon on trees and rocks.

Marsh horsetail (Equisetum palustre). Uncommon in wet areas.

Marsh shield fern (Dryopteris thelypteris). Uncommon in wooded wet areas.

Mountain wood fern (Dryopteris austriaca). Uncommon in pines and woods.

Net-veined chain fern (Lorinseria areolata). Uncommon in moist soils.

Rattlesnake fern (Botrychium virginianum). Uncommon in woods.

Resurrection fern (Polypodium polypodiodes). Uncommon on trees.

Scouring rush (Equisetum hyemale). Uncommon to common in wet areas.

Sensitive fern (Onoclea sensibilis). Uncommon in moist soils and low areas.

Silvery fern (Athyrium thelypteroides). Rare in moist shaded areas.

Stairstep moss (<u>Hylocomium</u> <u>splendens</u>). Uncommon.

Sword fern (Polystichum munitum). Uncommon in pines and conifers.

#### GRASSES

American beach grass (Ammophila breviligulata). Common in sandy coastal areas in eastern U.S. Tolerates some salinity.

(Sheet 1 of 57)

- American dune grass (Elymus mollis). Common grass of coastal dunes and sandy beaches over entire U.S. Tolerates some salinity and drought.
- American mannagrass (Glyceria grandis). Common grass of freshwater marshes in eastern U.S.
- Autumn bentgrass (Agrostis perennans). Common eastern upland grass with highly variable growth habits.
- Bahia grass (<u>Paspalum notatum</u>). Uncommon to common introduced, cultivated pasture grass of southern U.S.
- Barley (Hordeum vulgare). Uncommon to common cultivated cereal grass of northern U.S.
- Barnyard grass (Echinochloa crusgalli). Frequent grass of moist soils in entire U.S. Cultivated for waterfowl food. Tolerates slight salinity.
- Beach panic grass (<u>Panicum amarum</u>). Common grass in wet sandy areas. Tolerates some salinity.
- Beaked panic grass (<u>Panicum anceps</u>). Uncommon to common in moist sandy areas in eastern U.S.
- Big bluestem (Andropogon gerardi). Common cultivated prairie grass in northern U.S.
- Big cordgrass (Spartina cynosuroides). Common in coastal marshes in eastern U.S. Tolerates some salinity.
- Bluegrass (Poa annua). Common cultivated upland grass in eastern U.S.
- Bluejoint reedgrass (<u>Calamagrostis canadensis</u>). Frequent grass in freshwater marshes and meadows in eastern U.S.
- Bottlebrush (Hystrix patula). Uncommon grass in woods and thickets of eastern U.S.
- Brome grass ( $\underline{\text{Bromus}}$  inermus). Common upland grass in meadow and open areas over entire  $\underline{\text{U.S.}}$
- Broomsedge (Andropogon virginicus). Frequent grass of open waste areas over entire U.S.
- Brownseed paspalum (Paspalum plicatulum). Uncommon tropical grass in open wet areas in deep south.
- Buffelgrass (Cenchrus ciliaris). Uncommon introduced grass of open sandy areas in eastern U.S.
- Bull paspalum (Paspalum boscianum). Common grass in wet open areas over entire U.S.
- Bushy beardgrass (Andropogon glomeratus). Common grass in marshes and swamps in southern U.S.
- Canada bluegrass (<u>Poa compressa</u>). Uncommon introduced grass cultivated for pastures in northern U.S.

- Canadian wild rye (Elymus canadensis). Frequent grass over entire U.S. in wet and upland areas.
- Carolina canary grass (<u>Phalaris caroliniana</u>). Uncommon to common grass in old fields and wet soils of eastern U.S.
- Catchfly grass (Leersia lenticularis). Uncommon grass in eastern U.S. in ditches, swamps, and creek banks.
- Cheat grass (Bromus tectorum). Frequent grass in upland soils over entire U.S.
- Ciliate paspalum (<u>Paspalum</u> <u>ciliatifolium</u>). Uncommon grass in eastern U.S. in open areas.
- Coast arm-grass (<u>Brachiaria platyphylla</u>). Uncommon grass in sandy coastal areas. Tolerates slight salinity.
- Coast muhly (Muhlenbergia capillaris). Common grass in open woods of southern U.S.
- Coast paspalum (<u>Paspalum setaceum</u>). Uncommon grass of sandy open woods in southern U.S.
- Coast sandspur (Cenchrus incertus). Common grass of sandy beaches and islands in eastern U.S. Tolerates some salinity.
- Common Bermuda grass (Cynodon dactylon). Abundant grass of entire U.S. in moist, marshy areas. Tolerates some salinity.
- Common velvetgrass (Holcus lanatus). Common in sandy soils. Introduced, sometimes cultivated as pasture grass.
- Corn (Zea mays). Cultivated cereal grass in entire U.S. Some varieties bred to tolerate salinity.
- Cutgrass (Leersia virginica). Common grass in moist soils in eastern U.S.
- Dallis grass (<u>Paspalum ditatatum</u>). Frequent grass of southern U.S. in most soils.
- Deertongue (Muhlenbergia rigens). Uncommon to common grass in dry upland areas of eastern U.S.
- Dropseed (Muhlenbergia frondosa). Common grass of interior northern U.S. in most soils.
- Dune sandspur (<u>Cenchrus tribuloides</u>). Common on sandy beaches and dunes in eastern U.S. Tolerates salinity and drought.
- European beach grass (Ammophila arenaria). Uncommon introduced grass of coastal dunes and beaches. Tolerates salinity and drought.
- Fall witchgrass (Leptoloma cognatum). Uncommon grass in dry soil and sandy fields over entire U.S.
- Fescue (Festuca bromoides). Uncommon grass in upland sandy areas in eastern U.S.
- Fescue (Festuca octoflora). Frequent grass in open areas over entire U.S.

- Few-flowered panic grass (Panicum oligosanthes). Uncommon grass of sandy moist woods and thickets in eastern U.S.
- Field sandspur (Cenchrus pauciflorus). Frequent grass in waste places over entire U.S.
- Fingergrass (Chloris petraea). Common grass of eastern coastal plains in sandy open areas.
- Florida dropseed (Sporobolus domingensis). Uncommon tropical grass of south Florida coastal beaches and islands.
- Fowl meadowgrass (<u>Poa patustris</u>). Common upland grass in open areas of northern interior U.S.
- Foxtail barley (<u>Hordeum jubatum</u>). Abundant grass in waste places in entire U.S.
- Foxtail bristlegrass (Setaria geniculata). Uncommon grass in open areas, and in salt marshes in eastern U.S. Tolerates some salinity.
- Frank's lovegrass (<u>Eragrostis frankii</u>). Common grass of sandy bars and river banks in eastern U.S.
- Giant bristlegrass (Setaria magna). Uncommon grass in moist areas in eastern U.S.
- Giant reed (Arundo donax). Common sub-tropical, introduced, ornamental grass in southern U.S. & California
- Goose grass (<u>Elusine indica</u>). Common grass in open waste areas over entire U.S.
- Green bristlegrass (<u>Setaria viridis</u>). Common grass in waste areas in northern U.S.
- Gulf cordgrass (Spartina spartinae). Uncommon grass in saltmarshes of gulf coast. Tolerates salinity.
- Gulfdune paspalum (<u>Paspalum monostachyrum</u>). Rare grass in coastal dunes & moist areas of south Fla. & Texas. Tolerates some salinity.
- Hairgrass (Agrostis scabra). Uncommon grass of upland areas over entire U.S.
- Hairgrass (Aira elegans). Uncommon grass of coastal plain in southeast U.S.
- Hairgrass (Aira praecox). Uncommon grass of east & west coasts in sandy open areas. Tolerates slight salinity.
- Hooded windmill grass (Chloris cucullata). Uncommon prairie grass in dry soils in southcentral plains states.
- Indian grass (Sorghastrum nutans). Common prairie grass in dry soils over entire U.S.
- Italian ryegrass (Lolium multiflorum). Abundant, introduced, cultivated cereal grass over entire U.S., especially southern U.S.

- Japanese chess (Bromus japonicus). Common grass in upland open areas over entire U.S.
- Johnson grass (Sorghum halepense). Abundant grass in upland waste areas in southern U.S.
- Jungle rice (Echinochloa colonum). Common introduced grass in ditches and moist areas in southern U.S.
- Kentucky bluegrass (<u>Poa pratensis</u>). Abundant grass in upland areas. Used for lawns and pastures.
- King Ranch bluestem (Bothriochloa ischaemum). Uncommon grass of upland open areas in south Texas.
- Knotgrass (<u>Paspalum distichum</u>). Uncommon grass in moist or flooded areas over southern and western U.S. Tolerates slight salinity.
- Lacegrass (Eragrostis capillaris). Common grass in dry, open areas in eastern U.S.
- Large crabgrass (<u>Digitaria sanguinalis</u>). Abundant grass in disturbed soils in southern U.S.
- Little barley (<u>Hordeum pusillum</u>). Common grass in dry, upland areas over entire U.S. Tolerates alkaline soils.
- Little bluestem (Andropogon scoparius). Common grass in dry, open areas over entire U.S. except far west.
- Little foxtail grass (Setaria glauca). Common grass in waste areas over entire U.S.
- Lovegrass (<u>Eragrostis ciliaris</u>). Frequent grass on sandy shores and open areas in southeastern U.S.
- Lovegrass (<u>Eragrostis trichodes</u>). Uncommon grass of interior plains in sand barrens and open areas.
- Meadow barley (Hordeum brachantherum). Uncommon grass in marshy areas in western U.S.
- Mediterranean lovegrass (Eragrostis barrelieri). Uncommon introduced grass in waste areas of southwest U.S.
- Melic grass (Melica mutica). Uncommon grass in woods and thickets in southeastern U.S.
- Narrowleaf panic grass (Panicum angustifolium). Uncommon grass in sandy pine woods and coastal areas of eastern U.S.
- Nash windmill grass (Chloris latisquamea). Uncommon grass in upland areas of Texas and Arizona.
- Natal grass (Rhynchelytrum repens). Uncommon introduced grass in upland waste areas in southern U.S.
- Orchard grass (<u>Datylis glomerata</u>). Common grass in open areas over entire U.S.

- Pacific cordgrass (Spartina foliosa). Abundant grass of west coast saltmarshes. Tolerates sea water and flooding.
- Panic grass (Panicum clandestinum). Common grass in sandy moist areas in eastern U.S.
- Perennial ryegrass (Lolium perenne). Common grass of upland areas in entire U.S.
- Pink natal grass (Rhynchelytrum roseum). Uncommon introduced grass in sandy pastures and meadows of southeastern U.S.
- Plains bristlegrass (Setaria levcopila). Common upland grass of interior U.S.
- Prairie cordgrass (Spartina pectinata). Common in marsh areas over entire U.S. Tolerates some salinity.
- Prairie three-awn (Aristida intermedia). Uncommon grass in wet sandy soils of Mississippi River valley.
- Prairie three-awn (Aristida oligantha). Common grass in dry open areas in eastern and far western U.S.
- Prairie wedgescale (Sphenopholus obtusata). Common grass in open moist areas and old fields over entire U.S.
- Purple lovegrass (<u>Eragrostis pectinacea</u>). Common grass in open waste areas over entire U.S.
- Purple lovegrass (Eragrostis spectabilis). Common grass in sandy areas in eastern and southwestern U. S.
- Quackgrass (Agropyron repens). Abundant in open waste areas over entire U.S.
- Rabbitfoot polypogon (<u>Polypogon monspeliensis</u>). Abundant introduced grass in waste areas over coastal and midwestern U.S.
- Rattail fescue (Festuca myuros). Uncommon introduced grass in open coastal areas of U.S.
- Red lovegrass (Eragrostis oxylepis). Common grass in sandy soils of southern U.S.
- Red fescue (Festuca rubra). Uncommon grass in open moist areas of eastern U.S.
- Redtop (Agrostis gigantea). Abundant grass in cultivation for pastures and lawns in northern U.S.
- Redtop bentgrass (Agrostis alba). Abundant introduced grass in pastures and lawns in northern U.S.
- Reed bentgrass (Calamagrostis inexpansa). Common grass in marshes in northern U.S.
- Reed canary grass (Phalaris arundinacea). Common grass in moist areas over entire U.S.

- Rescue grass (<u>Bromus catharticus</u>). Frequent grass in pastures and wast areas in southern U.S.
- Rhode Island bentgrass (Agrostis tenius). Abundant grass in lawns & meadows in northern U.S.
- Rice cutgrass (Leersia oryzoides). Uncommon grass in wet and flooded soils of southern U.S.
- Roundseed panic grass (<u>Panicum spaerocarpon</u>). Uncommon grass in sandy soils in eastern U.S.
- Running bentgrass (Agrostis stolonifera). Uncommon grass in moist areas on north Atlantic coast.
- Ryebrome (Bromus secalinus). Abundant introduced grass in waste areas over entire U.S.
- Saltgrass (Distichlis spicata). Abundant grass of high saltmarshes in eastern U.S. Tolerates salinity.
- Saltmeadow cordgrass (Spartina patens). Abundant grass of high saltmarshes, meadows, and dunes in eastern U.S. Tolerates some salinity.
- Sand dropseed (Sporobolus crytandrus). Frequent grass in sandy open areas over entire U.S.
- Sand grass (Triplasis purpurea). Common grass in dry sand on east and gulf coasts and midwest. Tolerates drought and some salinity.
- Sandbar (Cenchrus longispinus). Common grass in sandy open areas over entire U.S.
- Sandspur (Cenchrus echinatus). Uncommon tropical grass in open and waste areas in deep south.
- Schrader's rescue grass (<u>Bromus unioloides</u>). Uncommon introduced grass cultivated for winter forage in U.S.
- Sea oats (<u>Uniola paniculata</u>). Uncommon grass of coastal dunes in eastern U.S. Tolerates some salinity and drought.
- Seashore bluegrass (<u>Poa macrantha</u>). Common grass on sand dunes along Pacific coasts. Tolerates drought.
- Seashore paspalum (Paspalum vaginatum). Frequent grass on seashores and brackish sands in southeast U.S. Tolerates some salinity.
- Sheep panic grass (<u>Panicum ovinum</u>). Rare grass in open areas in lower Mississippi River valley.
- Shoredune panic grass ( $\underline{Panicum}$   $\underline{amarulum}$ ). Common grass on sandy shores and dunes in southeast  $\underline{U.S.}$
- Shoregrass (Mononthochloe littoralis). Abundant grass on mud and sand shores and tidal flats in deep south. Tolerates salinity.
- Sicklegrass (<u>Parapholis incurva</u>). Uncommon introduced grass on mud flats and in salt marshes on east and west coasts. Tolerates salinity.

- Silver bluestem (Bothriochloa saccharoides). Uncommon tropical grass in moist areas of Florida and Texas.
- Silver hairgrass (Aira caryophylla). Uncommon grass in open dry areas along U.S. coasts.
- Slender wheatgrass (Agropyron trachycaulum). Uncommon upland grass in open areas in northern U.S.
- Smooth cordgrass (Spartina alterniflora). Abundant grass of eastern saltmarshes. Tolerates salt water and flooding.
- Smooth crabgrass (<u>Digitaria</u> <u>ischaemum</u>). Common grass in disturbed soils in eastern U.S.
- Smooth creeping lovegrass (<u>Eragrostis hypnoides</u>). Common grass on sandy river banks and wet areas over entire U.S.
- Smutgrass (Sporobolus poiretii). Frequent introduced grass on pastures and waste areas in southern U.S.
- Soft chess (Bromus mollis). Common introduced grass in waste areas in northern U.S.
- Spike bentgrass (Agrostis exarata). Frequent grass in moist open ground in western U.S.
- Splithead bluestem (Andropogon ternarius). Uncommon grass in upland areas in southeast U.S.
- Spreading witchgrass (Panicum dichotomiflorum). Common grass in open moist sandy areas of eastern U.S.
- St. Augustine grass (Stenotophrum secundatum). Abundant deep south lawn grass.
- Switchgrass (Panicum virgatum). Common grass of moist areas in southern U.S.
- Tall dropseed (Sporobolus asper). Common grass in prairies and sandy meadows over entire U.S.
- Tall fescue (Festuca arundinacea). Frequent cultivated grass of pastures and meadows overentire U.S.
- Texas crabgrass (<u>Digitaria texana</u>). Uncommon grass in disturbed soils in south Texas.
- Thickspike wheatgrass (Agropyron dasystachyum). Uncommon grass on plains and sandy beaches in western U.S.
- Three-awn (Aristida longespica). Uncommon grass in sandy soils in eastern U.S.
- Tickle grass ( $\underline{\text{Agrostis}}$   $\underline{\text{hyemalis}}$ ). Uncommon grass in upland areas in eastern  $\overline{\text{U.S.}}$
- Timothy (Phleum pratense). Common cultivated grass in pastures in northern U.S.

- Torpedo grass (Panicum repens). Common grass of freshwater marshes in eastern U.S.
- Tropic dropseed (Sporobolus indicus). Uncommon introduced grass in waste areas in deep south.
- Tropic sprangletop (Leptochloa virgata). Uncommon tropical grass in open areas in deep south.
- Tufted hairgrass (<u>Deschampsia caespitosa</u>). Common grass of low marshes in Pacific northwest.
- Tumble lovegrass (Eragrostis sessilispica). Uncommon upland grass in sandy prairies in Texas, New Mexico, and Oklahoma.
- Vasey grass (<u>Paspalum urvillei</u>). Common grass of ditches and waste areas in southern U.S.
- Virginia dropseed (Sporobolus virginicus). Common grass of sandy beaches in eastern U.S.
- Walter's millet (Echinochloa walteri). Common cultivated grass in moist soils in eastern U.S. Grown as waterfowl food.
- Water panic grass (Panicum paludevagum). Common grass in wet places in southern U.S.
- Wedgescale (Sphenopholus intermedia). Common grass in moist woods and thickets over entire U.S.
- Wheatgrass (Agropyron intermedium). Uncommon introduced grass cultivated for pastures and rangeland in Pacific northwest.
- White tridens (Tridens albescens). Uncommon grass in plains and open woods in central southwest U. S.
- Whorled dropseed (Sporobolus pyramidatus). Uncommon grass on sandy shores and waste areas in deep south, Texas, and Florida.
- Wild chess (Bromus kalmii). Common grass in dry and sandy soils in northeast U.S.
- Wild rye (Elymus virginicus). Frequent grass in moist areas and low woods over entire U.S.
- Wild timothy (Muhlenbergia racemosa). Frequent grass in most soils over entire U.S. except southeast.
- Witchgrass (Panicum capillare). Frequent upland grass in open waste areas over entire U.S.
- Woolly panic grass (Panicum longinosum). Common grass in sandy pine and oak woods in southeast U.S.
- ---- (Microstegium vimineum). Uncommon introduced grass on shaded banks and roadsides in eastern U.S.
- ---- (Opismenus setarius). Uncommon grass in shaded coastal areas in southeastern U.S.

#### AQUATIC AND LOW MARSH PLANTS

- Alligator weed (Althernanthera philoxeroides). Common freshwater emergent marsh plant in southeastern U.S.
- Arrow arum (<u>Peltandra virginica</u>). Common freshwater interior and coastal emergent plant in eastern U.S.
- Arrowhead (Sagittaria spatulata). Uncommon freshwater emergent plant in eastern U.S. Waterfowl food.
- Awl fruited sedge ( $\underbrace{\text{Carex}}_{\text{meadows over}}$  stipata). Uncommon plant in swamps and wet meadows over entire  $\underbrace{\text{U.S.}}_{\text{.}}$
- Awned cyperus (Cyperus inflexus). Uncommon plant in wet sandy soils over entire U.S. except far west.
- Awned nutsedge (Cyperus aristatus). Uncommon fragrant plant in wet sandy soils over entire U.S. except far west.
- Baldwin spike rush (Eleochoris baldwinii). Uncommon plant in wet soils in eastern U.S.
- Baltic rush (Juncus balticus). Uncommon interior U.S. marsh plant in fresh and alkali marshes over entire U.S.
- Bigelow's glasswort (Salicornia bigelowii). Common plant of coastal salt marshes. Tolerates high salinities & tides.
- Black needlerush (<u>Juncus roemerianus</u>). Common brackish to salt marsh plant in eastern U.S.
- Black rush (<u>Juncus gerardi</u>). Uncommon in coastal brackish marshes in northern U.S.
- Black smartweed (<u>Polygonum paranychia</u>). Uncommon plant in moist areas in northern U.S.
- Blunt sedge (<u>Carex tribuloides</u>). Uncommon bright green plant in meadows in Florida, Arizona, and gulf coast.
- Blunt spike rush (<u>Eleocharis obtusa</u>). Uncommon plant in interior freshwater marshes over entire U.S.
- Broadleaf arrowhead (Sagittaria latifolia). Abundant emergent plant in freshwater marshes over entire U.S.
- Broadleaf cattail (<u>Typha latifolia</u>). Abundant emergent plant in freshwater marshes over entire U.S.
- Bushy knotweed (Polygonum ramosissimum). Common plant in saline soils over entire U.S., especially on coasts.
- Cattail sedge (<u>Carex typhina</u>). Uncommon emergent plant in swamps in eastern U.S.
- Chufa (Cyperus esculentus). Frequent plant in freshwater marshes over entire U.S. except west. Abundant in deep south. Cultivated for waterfowl.

- Climbing false buckwheat (<u>Polygonum</u> <u>scandens</u>). Uncommon in open woods and thickets over entire U.S.
- Coarse cyperus (Cyperus odoratus). Uncommon plant in wet soils over entire U.S. except far west.
- Coastal sedge (Carex phyllomanica). Uncommon plant in coastal fresh marshes in east and west coasts.
- Common threesquare (Scirpus americanus). Common emergent plant in interior & coastal fresh, brackish, and salt marshes over entire U.S. Tolerates some salinity.
- Common spike rush (Eleocharis palustris). Frequent emergent plant in interior and coastal fresh and brackish marshes over entire U.S., primarily northern U.S. Tolerates salinity.
- Crested sedge (Carex cristatella). Uncommon plant in low meadows and thickets in northern U.S.
- Dark green bulrush (Scirpus atrovirens). Common emergent plant in swamps in eastern U.S. Frequent in south along streams.
- Dotted smartweed (Polygonum punctatum). Common plant in freshwater marshes in eastern U.S.
- Dry-spiked sedge (Carex siccata). Uncommon plant in fields and meadows in northern and southwestern U.S.
- Dudley's rush (Juncus dudleyi). Uncommon to common plant in damp soil and open areas over entire U.S.
- Dwarf spike rush (Eleocharis parvula). Uncommon to common emergent plant of coastal and interior fresh and brackish marshes in eastern U.S.

  Rare on west coast.
- Eel grass (Zostera marina). Common marine submergent in waters adjoining dredged material islands and deposits.
- Erect smartweed (Polygonum erectum). Common plant in dry or moist soils in waste places in eastern U.S.
- European glasswort (Salicornia europaea). Common marsh plant in coastal and interior salt marshes over entire U.S. Tolerates high salinities.
- Fimbry (Fimbristylis castanea). Common in coastal brackish and salt marshes in eastern U.S.
- Fimbrystilis (Fimbristylis spadicea). Abundant in interior and coastal fresh and brackish marshes in eastern U.S.
- Flat nutsedge (Cyperus compressus). Uncommon plant in fields and waste places in eastern U.S.
- Flat nutsedge (Cyperus polystachyos). Uncommon plant in wet fields and meadows over entire U.S. except far west.
- Fox sedge (<u>Carex vulpinoidea</u>). Uncommon to common plant in swamps and wet meadows in eastern U.S.

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- Globe nutsedge (Cyperus ovularis). Uncommon plant in fields and meadows in eastern U.S.
- Grassleaf rush (<u>Juncus marginatus</u>). Uncommon plant in grassy areas in eastern U.S.
- Greenish-white sedge (Carex albolutescens). Uncommon plant in wet soil along inland lakes and east and west coasts.
- Hairy fruited sedge (Carex <u>laeviconica</u>). Uncommon in marshes and wet meadows in eastern U.S. and Pacific northwest.
- Hardstem bulrush (Scirpus acutus). Uncommon plant in fresh and brackish marshes over entire U.S.
- Jaumea (Jaumea carnosa). Uncommon plant in coastal salt marshes on west coast.
- Knotted rush (Juncus nodosus). Rare to uncommon in moist areas in northern U.S. and in Nevada.
- Large-headed sedge ( $\underline{Carex}$   $\underline{macrocephala}$ ). Uncommon plant in fresh marshes in western U.S.
- Lady's thumb (Polygonum persicaria). Common introduced plant in waste places over entire U.S.
- Least spike rush (Eleocharis acicularis). Common emergent plant of freshwater marshes in northeastern U.S.
- Lilaeopsis (Lilaeopsis occidentalis). Uncommon creeping plant in mud by rivers, brackish and salt marshes along east and gulf coast.
- Lyngby's sedge (<u>Carex lyngbyei</u>). Common plant in coastal brackish and salt marshes on west coast.
- Manatee grass (Syringodium filiforme). Uncommon marine submergent plant adjoining dredged material islands in southern waters.
- Marsh boltonia (Boltonia asteroides). Common plant in freshwater marshes over entire U.S.
- Marsh cress (Rorippa islandica). Uncommon introduced plant on wet shores and in waste areas in northeastern U.S.
- Marsh dayflower (Aneilema keisak). Uncommon reclining plant in freshwater marshes of southeastern U.S.
- Marsh smartweed (Polygonum coccineum). Common emergent plant in freshwater marshes in eastern U.S.
- Marsh pepper (Polygonum hydropiper). Frequent emergent plant in freshwater marshes of eastern U.S.
- Muhlenberg's sedge (Carex muhlenbergii). Uncommon in fields and meadows in eastern U.S.
- Muskingum sedge (Carex muskingumensis). Uncommon in moist woods and thickets in northcentral U.S.

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- Naiad (Najas gracillima). Common floating plant in fresh to brackish marshes in eastern U.S. (adjacent to dredged material islands and washing onto islands).
- Narrowleaf arrowhead (Sagittaria rigida). Uncommon emergent plant in fresh marshes of eastern U.S.
- Narrowleaf cattail (<u>Typha angustifolia</u>). Common emergent plant in fresh and brackish coastal marshes of eastern U.S. Also known as saltwater cattail.
- Nodding smartweed (Polygonum lapathifolium). Abundant plant in freshwater marshes and wet ground over entire U.S. Occurs in low meadows.
- Nutsedge (Cyperus articulatus). Uncommon plant in wet fields in eastern U.S.
- Nutsedge (Cyperus linguloris) Uncommon plant in fields and meadows in eastern U.S.
- Nutsedge (Cyperus planifolius). Uncommon plant in wet soils in eastern U.S.
- Nutsedge (Cyperus virens). Uncommon plant in wet fields and meadows in eastern U.S.
- Nuttall's sedge (Cyperus filicinis). Uncommon plant in salt marshes on east and gulf coasts.
- Olney's threesquare (<u>Scirpus olneyi</u>). Common plant in brackish marshes in west and midwest. Frequent on west coast. Tolerates some salinity.
- Oneflower nutsedge (Cyperus uniflorus). Uncommon plant in fields & meadows in eastern U.S.
- Pacific sedge (Carex obnupta). Common plant in fresh to brackish marshes on west coast. Tolerates slight salinity.
- Pennsylvania smartweed (Polygonum pennsylvanicum). Common plant in fresh marshes in eastern U.S.
- Pennywort (Hydrocotyle verticillata). Abundant plant in sandy coastal marshes in eastern U.S.
- Pickerelweed (Pontederia cordata). Common emergent plant in freshwater marshes of eastern U.S.
- Pointed sedge (Carex scoparia). Uncommon plant in moist soil in north-western U.S. and southeastern U.S.
- Porcupine sedge (Corex hystericina). Uncommon plant in swamp and low meadows in eastern and southwestern U.S.
- Prostrate knotweed (<u>Polygonum aviculare</u>). Common plant in sandy soils in fresh and brackish areas over eastern U.S. Frequent on some dredged material islands.

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- Purple nutsedge (Cyperus rotundus). Abundant plant in most soils, wet or dry, over entire U.S. except far west.
- Red-rooted sedged (Cyperus erythrorhizos). Common plant in freshwater marshes in eastern U.S. Tolerates flooding in winter only.
- River bulrush (<u>Scirpus fluviatilis</u>). Common plant in freshwater marshes in northeastern U.S. Uncommon in southwest U.S.
- Rush (Juncus coriaceus). Uncommon plant in moist places in northern U.S.
- Sabatia (Sabatia stellaris). Uncommon in coastal brackish and salt marshes of eastern U.S.
- Saltmarsh bulrush (Scirpus maritimus). Uncommon plant in brackish and salt marshes in southeastern U.S.
- Saltmarsh bulrush (Scirpus robustus). Common plant brackish to salt marshes on U.S. Coasts.
- Saltmarsh spike rush (Eleocharis albida). Uncommon plant in coastal brackish marshes in eastern U.S. Tolerates some salinity.
- Saltwort (Batis maritima). Uncommon plant in coastal salt marshes in southeastern U.S. and California. Tolerates salinity.
- Saltwort (Salsola kali). Common spiny plant on sea beaches on east coast.
- Sand spike rush (<u>Eleocharis montevidensis</u>). Uncommon plant in wet sandy soils in eastern U.S.
- Saw grass (Cladium jamaicensis). Abundant emergent plant, in freshwater marshes in Florida. Uncommon to common in rest of southeast U.S.
- Schweinitz's cyperus (Cyperus schweinitzii). Common plant on sandy lake and stream banks in northeastern U.S.
- Sea lavender (<u>Limonium carolinianum</u>). Uncommon plant in coastal salt marshes in southeastern U.S.
- Sea lavender (<u>Limonium nashii</u>). Uncommon plant in coastal salt marshes in eastern U.S.
- Sea lavender (<u>Limonium vulgare</u>). Uncommon plant in coastal salt marshes in eastern U.S.
- Sea lettuce (<u>Ulva lactuca</u>). Common marine submergent washing onto dredged material beaches.
- Seaside arrowgrass (<u>Triglochin maritima</u>). Common fresh to brackish marsh plant in Pacific northwest.
- Sedge (Carex brevior). Uncommon plant in wet fields & meadows over entire U.S.
- Shining cyperus (Cyperus vivularis). Uncommon plant in wet soils in eastern U.S.
- Slender rush (Juncus tenius). Frequent plant in most soils in fields and lawns over entire U.S.

- Slender-stemmed cyperus (Cyperus <u>lupulinus</u>). Uncommon plant in wet soils in eastern U.S.
- Slough sedge (Carex trichocarpa). Common in interior marshes and wet meadows in northern U.S.
- Smartweed (Polygonum argyrocoleon). Uncommon plant in wet soils in eastern U.S.
- Soft rush (Junaus effusus). Frequent to abundant freshwater marsh plant in southeastern U.S.
- Softstem bulrush (Scirpus validus). Common freshwater marsh plant over entire U.S.
- Southern arrowgrass (<u>Triglochin striata</u>). Uncommon freshwater marsh plant in southeast U.S.
- Southern bulrush (Scirpus californicus). Uncommon to common marsh plant over entire U.S.
- Southern smartweed (Polygonum densiflorum). Frequent plant in freshwater marshes in eastern U.S.
- Spike rush (Eleocharis calva). Uncommon plant in fresh and brackish marshes over entire U.S.
- Spike rush (Eleocharis halophila). Uncommon plant in fresh and brackish marshes over entire U.S.
- Straw-colored cyperus (Cyperus strigosus). Common plant in moist meadows, swamps, and along streams in eastern U.S.
- Straw sedge (Carex tenera). Uncommon in woods in northern U.S. and California.
- Toad rush (Juncus bufonis). Frequent plant in wet soils, old ponds, stream banks, and roadsides over entire U.S.
- Toothed cyperus (Cyperus dentatus). Uncommon plant in sandy swamps and on shores on east coast.
- Tule cattail (Typha domingensis). Uncommon emergent plant in freshwater marshes in southeastern U.S. and California.
- Water horehound (Lycopus americanus). Frequent in wet soils over entire U.S.
- Water horehound (Lycopus rubellus). Frequent in wet soils in eastern U.S.
- Water hyssop (<u>Bacopa monnieri</u>). Uncommon in coastal fresh and brackish marshes in southeastern U.S.
- Water smartweed (Polygonum amphibium). Common floating emergent plant in interior freshwater marshes over entire U.S.
- Water parsnip ( $\underline{\text{Suim suave}}$ ). Uncommon emergent plant in wet places and muddy banks over entire U.S.

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- Water pennywort (<u>Hydrocotyle</u> <u>bonariensis</u>). Common plant in sandy wet areas on eastern & gulf coasts. Tolerates salinity.
- Water plantain (Alisma plantago-aquatica). Common emergent plant in interior freshwater marshes over entire U.S.
- Water plantain (Alisma subcordatum). Uncommon emergent plant in freshwater marshes over entire U.S.
- Water primrose (<u>Jussiaea repens</u>). Abundant floating emergent plant in interior freshwater marshes in southeastern U.S.
- Water ptilimnium (Ptilimnium capillaceum). Uncommon plant in fresh and brackish marshes in eastern U.S.
- Water sedge (Carex emoryi). Uncommon emergent plant in swamps and along streams in northern and southwestern U.S.
- Water starwort (Callitriche fassettii). Uncommon floating submergent in freshwater streams and marshes in eastern U.S.
- Water starwort (Collitriche heterophylla). Common floating submergent in freshwater marshes and lakes in northern U.S.
- White-topped umbrella grass (<u>Dichromena colorata</u>). Uncommon plant in moist sandy soil in eastern U.S. Occurs in tropics.
- Widgeongrass (Ruppia maritima). Common in coastal fresh and brackish marshes over entire U.S. Cultivated as waterfowl food.
- Woody glasswort (Salicornia virginica). Frequent plant in coastal salt marshes over entire U.S.
- Wool grass (Scirpus cyperinus). Common plant in swamps and sandy soils in eastern U.S.
- Woolly sedge (<u>Carex lanuginosa</u>). Uncommon plant in swamps and wet meadows.
- Yellow cyperus (Cyperus iria). Uncommon introduced plant in waste places and swamps in eastern U.S.
- Yellow-fruited sedge (Carex annectans). Uncommon plant in fields in northeastern U.S.

#### HERBS

- Ageratum (<u>Eupatorium coelestinum</u>). Common stout herb in moist soil in eastern U. S.
- Air jam (<u>Dioscorea bulbifera</u>). Uncommon twining herb in moist thicket in deep south.
- Alsike clover (<u>Trifolium hybridum</u>). Common cultivated herb in pastures and fields in southeastern U. S.
- Alyssum (Alyssum alyssoides). Uncommon introduced herb in waste areas in northeastern U. S.

- American brooklime ( $\underline{\text{Veronica}}$  americana). Uncommon herb in swamps and streams in northern U. S.
- American nightshade (Solanum americanum). Common herb in waste areas in eastern U. S.
- American sea rocket (<u>Cakile edentula</u>). Common herb on sandy shores throughout entire U. S. Tolerates slight salinity.
- American snoutbean (Rhynchosia americana). Common twining herb in dry sandy soil in eastern u. S.
- Anemone (Anemone canadensis). Uncommon stout herb in wet areas in northern U. S.
- Annual saltmarsh aster (Aster <u>sublatus</u>). Uncommon herb on wet sandy shores, islands, and salt marshes on east and gulf coasts.
- Arrowleaf false mallow (<u>Sida rhombifolia</u>). Uncommon erect herb in wet areas in southeastern U. S.
- Asian dayflower (<u>Commelina communis</u>). Common introduced procumbent herb in moist soils in southeastern U. S.
- Aster (Aster ontarionsis). Uncommon erect herb in moist soils in northern U. S.
- Aster (Aster simplex). Uncommon herb in moist soils in eastern U. S.
- Aster (Aster subulatis). Common fleshy herb in salt marshes on east
- Aster (Aster vinimeus). Common to frequent herb in moist soils in eastern U. S.
- Avens (Geum laciniatum). Common small herb in swamps and wet areas in northern U. S.
- Bay bean (Canavalia maritima). Uncommon herb in moist sandy soils in southeastern U. S.
- Beach evening primrose (Oenothera drummondii). Frequent herb sandy shores and islands in eastern U. S. Tolerates slight salinity.
- Beach ground cherry (Physalis viscosa). Uncommon small herb in wet sandy soils in eastern U. S.
- Beach heather (<u>Hudsonia tometosa</u>). Uncommon dense herb on sand shores and in pine barrens in eastern and across northern U. S.
- Beach orache (Atriplex arenaria). Common silvery bushy herb of sea beaches on east coast.
- Beach pea (<u>Lathyrus japonicus</u>). Common legume on sandy shores on east and gulf coasts.
- Beach sand spurry ( $\underline{Spergularia}$   $\underline{macrotheca}$ ). Common spring herb on wet sandy shores on east and  $\underline{gulf}$  coasts.

- Bedstraw (Galium palustre). Common trailing clinging herb in most soils in eastern U. S.
- Beggartick (Bidens frondosa). Common erect herb in moist soils in eastern U. S.
- Beggartick (<u>Bidens pilosa</u>). Uncommon herb in moist waste places in eastern U. S.
- Berlandier amaranth (<u>Amaranthus berlandieri</u>). Uncommon branching herb in moist soils in deep south soils.
- Bessey's gerardia (Gerardia tenuifolia). Uncommon slender herb in dry woods and thickets in northeastern U. S.
- Bird pepper (<u>Capsicum annuum</u>). Uncommon small herb in moist soils in deep south and Texas.
- Birdsfoot trefoil (Lotus cornicaulatus). Uncommon introduced procumbent herb in waste areas in northeastern U. S.
- Bitter cress (<u>Cardimine pennsylvanica</u>). Uncommon in swamps and wet areas in eastern U. S.
- Bitter sneezeweed (Helemium amarum). Common to abundant stout bitter herb in waste areas and pastures in southeastern U. S.
- Bittersweet (<u>Celastrus scandens</u>). Uncommon viny herb in rich soils in northern U. S.
- Black medic (Medicago lupulina). Frequent small herb in moist soils in eastern U. S.
- Black mustard (<u>Brassica nigra</u>). Common herb in wet soils in northern U. S.
- Black nightshade (Solanum nigrum). Uncommon small herb in moist soils in northern U.S.
- Bloodleaf (Iresine rhizomatosa). Uncommon erect herb in dry soils in eastern U.S.
- Blue curl (<u>Trichostema suffrutescens</u>). Uncommon branched herb in dry sandy areas along east coast.
- Blue flag (<u>Iris virginica</u>). Uncommon fleshy stout herb with showy flowers in moist sandy soils in eastern U.S.
- Blue pea (Clitoria ternalea). Uncommon introduced legume with showy flowers in Florida.
- Blue vervain (Verbena hastata). Common stiff erect herb in moist soils and waste areas throughout U.S.
- Bluntpod bundleflower (<u>Desmanthus obtusus</u>). Common herb in dry soils in southwestern U.S. & Texas.
- Bog-hemp (Boerhmeria cylindrica). Frequent rough herb in moist soils over eastern U.S. to Kansas.

- Boneset (Eupatorium perfoliatum). Common erect herb in moist soils in northern U.S.
- Bouncing betty (Saponaria officinalis). Uncommon introduced herb with showy flower clusters in northern U.S.
- Brass button (Cotula coronopifolia).
- Bristleleaf dogweed (Dyssodia tenuiloba). Uncommon erect herb in moist soils and waste places in eastern U.S.
- Bristly crowfoot (Ranunculus pennsylvanicus). Uncommon erect branching herb in wet open areas in northern U.S.
- Broadpetal strawberry (Fragria virginiana). Common small herb in moist rich areas in eastern U.S.
- Brown-eyed susan (Rudbeckia hirta). Uncommon herb with showy flowers in dry soils in southern U.S.
- Buckthorn plantain (Plantago aristata). Abundant dark green herb in dry soils throughout entire U.S.
- Bull thistle (Carduus lanceolatus). Common spiny herb in moist soils throughout U.S.
- Bull thistle (Circsium vulgare). Common spiny herb in moist soils in eastern U.S.
- Bundleflower (<u>Desmanthus</u> <u>virgatus</u>). Common branching herb in dry soils in eastern U.S.
- Bur clover (Medicago polymorpha). Common introduced herb in waste places and meadows in eastern U.S.
- Bur cucumber (Sicyos angulatus). Uncommon viney herb in moist areas in eastern U.S. to Kansas.
- Butter and eggs (Linaria vulgaris). Common introduced herb in fields and waste areas over entire U.S. except far west.
- Buttercup (Ranunculus scelaratus). Common stout herb in swamps and wet ditches over entire U.S. Abundant along coasts.
- Caesar weed (Urena lobota).
- California figwort (Scrophularia californica). Uncommon strong-smelling herb in open woods and thickets in western U.S.
- Camphorweed (Heterotheca subaxillaris). Frequent herb in sandy coastal soils in eastern U.S.
- Camphor daisy (Machaeranthera phyllocephala). Common stout herb with showy flowers in dry soil in eastern U.S.
- Canada thistle (Cirsium arvense). Abundant spiny thistle in moist to wet soils throughout entire U.S.

- Canadian sand spurry (Spergularia canadensis). Common prostrate small herb in muddy soils in northern U. S.
- Candyflower (Montia sibirica). Uncommon dense herb in wet places in northern U. S. Prefers cold climates.
- Canela (<u>Pluchea purpurascens</u>). Uncommon purplish herb in swamps and wet areas in eastern U. S.
- Cardinal flower (Lobelia cardinalis). Common erect robust herb with showy flowers in moist to wet soils in eastern U. S.
- Carpetweed (Mollugo verticillata). Common prostrate herb in waste places and cultivated fields over entire U. S., especially southeastern U. S.
- Carolina geranium (Geranium carolinianum). Frequent low herb in sandy soils in southeastern U. S.
- Carolina mollow (Modiola caroliana). Common branched herb with showy flowers in low grounds in southeastern U. S.
- Carolina phyllanthus (Phyllanthus carolinensis). Uncommon wiry herb in sandy or gravelly soil in eastern U. S.
- Carolina wolfberry (Lycium carolinianum). Common introduced herb on thickets and waste areas in eastern U. S. to Kansas.
- Castor bean (Ricinus communis). Common erect herb in waste places in southeastern U. S. Cultivated as ornamental and medicinal plants.
- Catchfly (Silene cserei). Uncommon erect herb in dry soils in eastern U. S.
- Cathedral bells (Kalanchoe pinnata). Uncommon tropical fleshy herb in sandy soils in Florida.
- Catnip (Nepeta cataria). Common herb in moist soils in northern U. S.
- Chinese mustard (<u>Brassica juncea</u>). Common herb in moist soils in northern U. S.
- Chisme (Portulaca mundula). Uncommon prostrate herb in fields and waste areas in southern U. S.
- Clammyweed (<u>Polanisia dodecandra</u>). Uncommon branching herb in dry soils over entire U. S.
- Clammyweed (<u>Polanisia graveolens</u>). Common branching herb on sandy and gravelly shores over entire U. S.
- Clearweed (<u>Pilea pumila</u>). Common erect herb in shaded swamps and low areas in eastern U. S. to Kansas.
- Cleavers (Galium aparine). Common clinging herb in moist soils in eastern U. S., especially in north central states.
- Climbing hempweed (Mikania scandens). Uncommon twining herb in swamps and moist soils in eastern U. S.

- Coast bedstraw (Galium hispidulum). Uncommon clinging herb in moist sandy soils in eastern U. S.
- Coast brookweed (<u>Samolus ebractealus</u>). Uncommon erect herb in swamps, brooks, and brackish marshes near coasts over entire U. S.
- Coast milkweed (Asclepias lanceolata). Common simple herb in swamps and coastal soils in eastern U. S.
- Coffee senna (Cassia occidentalis). Common branched erect herb in waste places in eastern U. S. Abundant in deep south.
- Cocklebur (Xanthium strumarium). Abundant shrubby herb in fields and waste areas in eastern U. S., especially southeast.
- Common burdock (<u>Arctium minus</u>). Common introduced small herb in waste places over entire U. S.
- Common chickweed (<u>Stellaria media</u>). Abundant small herb in fields and waste areas in eastern U. S., especially south.
- Common chicory (<u>Cichorium intybus</u>). Frequent branched herb in waste areas and fields throughout U. S.
- Common dandelion (<u>Taroxacum officinale</u>). Abundant small herb in lawns, pastures, and waste areas throughout entire U. S.
- Common frogfruit (Phylla modiflora). Common erect herb in low wet areas in Texas.
- Common milkweed (Ascelepias syriaca). Frequent erect herb in moist soils in eastern U. S., especially northern U. S.
- Common motherwort (Leonurus cardiaca).
- Common mullein (<u>Verbascum thapsum</u>). Abundant erect stout herb in fields and waste areas over nortnern U. S.
- Common pigweed (Amaranthus hybridus). Frequent bushy herb in moist rich soils in eastern U. S.
- Common plantain (<u>Plantago major</u>). Abundant low herb in moist soils in waste areas and lawns throughout entire U. S.
- Common ragweed (Ambrosia artemisiifolia). Abundant erect herb in moist sandy soils throughout entire U. S.
- Common sowthistle (Sonchus oleraceus). Abundant introduced leafy herb in fields and waste places over entire U. S.
- Common sunflower ( $\underline{\text{Helianthus}}$  annuus). Common erect herb in moist soils throughout entire U. S.
- Common tansy (<u>Tanacetum vulgare</u>). Frequent herb in moist soils eastern U. S.
- Common vetch (<u>Vicia sativa</u>). Common legume in waste places and cultivated for forage and soil conservation over entire U. S.

- Common wintercress (<u>Barbarea vulgaris</u>). Common branching leafy herb in waste areas over entire U. S.
- Common wormwood (Artemisia absinthium). Frequent shrubby herb in waste areas over entire U. S.
- Coral bean (Erythrina herbacea). Uncommon branched herb in upland soils in southeastern U. S.
- Coreopsis (Coreopsis lanceolata). Common erect herb with showy flowers in most soils in northeastern U. S. to Michigan.
- Corn salad (<u>Valerianella stenocarpa</u>). Uncommon erect herb in prairies and woodlands in central U. S.
- Corpus Christi fleabane (Erigeron myrionactus). Uncommon herb with showy flowers in moist soils in Texas.
- Cow cress (<u>Lepidium campestre</u>). Common herb in waste areas and fields over northern U. S. to Virginia.
- Cow parsnip (Heracleum lanatum). Common very stout herb in moist soils throughout entire U. S. except deep south.
- Cow pea (<u>Vigna luteola</u>). Frequent cultivated legume in most soils in southeastern U. S.
- Crab's eye (Abrus precatorius).
- Creeping buttercup (Ranunculus repens). Common prostrate herb in moist sandy soils of eastern U. S.
- Creeping charlie (Glecoma hederacea). Common leafy herb in waste areas, woods, and thickets over entire U. S. except deep south.
- Creeping cucumber (Melothria pendula). Uncommon viney herb in thickets in eastern U. S.
- Croton (Croton punctatus). Uncommon branched herb in dry soil in eastern U. S.
- Crow poison (Northoscordum bivalve). Uncommon bulbous herb in sandy soils in eastern U. S. to Nebraska.
- Cudweed (Gnaphalium falcatum). Uncommon pubescent herb in dry soils in eastern U. S.
- Cudweed (Gnaphalium pensilvanicum). Uncommon herb in dry open areas in eastern U. S.
- Curly dock (Rumex crispus). Frequent erect stout herb in moist soils in eastern U. S.
- Cut-leaved evening primrose (Oenothera laciniata). Common procumbent herb in sandy dry soils in eastern U. S.
- Dahlbergia (Dahbergia ecastoyshyllum).

- Daisy fleabane (<u>Erigeron annuus</u>). Abundant erect herb with showy flower clusters in fields over eastern U. S. to Missouri.
- Daisy fleabane (Erigeron quercifolius). Uncommon erect herb in fields and waste areas over eastern U. S.
- Daisy fleabane (<u>Erigeron strigosus</u>). Common erect herb in fields over entire U. S.
- Dalea ( $\underline{\text{Dalea}}$  emarginata). Uncommon shrubby herb on prairies in central  $\underline{\text{U. S.}}$
- Dayflower (<u>Commelina diffusa</u>). Uncommon herb in moist areas in eastern U. S.
- Dayflower (Commelina erecta). Uncommon herb in marshes and low areas in southeastern U. S.
- Daylily (Hemerocallis fulva). Uncommon herb with showy flowers in most soils in eastern U. S. Common in cultivation.
- Deer pea vetch (<u>Vicia ludoviciana</u>). Common legume in moist soils from Texas to Florida.
- Desert Christmas cactus (Opuntia leptocaulis). Uncommon fleshy herb in dry sandy soils in Texas and southwest U. S.
- Ditch stonecrop (Penthorum sediodes). Uncommon erect branched herb in ditches and swamps in eastern U. S. to Kansas.
- Dog fennel (Eupatorium capillifolium). Abundant erect fine-leaved herb in fields and wasteplaces on southeastern U. S.
- Dog fennel (Eupatorium compositifolium). Common erect fine-leaved herb in waste areas in Florida.
- Douglas's aster (Aster <u>subspicatus</u>). Uncommon erect herb in dry soils in northeastern U.S.
- Downy ground cherry (<u>Physalis</u> <u>pubescens</u>). Uncommon low herb in sandy soil in eastern U. S.
- Drummond skullcap (Scutellaria drummondii). Uncommon hirsute herb in dry shady soils in Texas.
- Dwarf dalea (<u>Dalea nana</u>). Uncommon shrubby herb in dry soils in central U.S.
- East coast prickly pear cactus (Opuntia compressa). Uncommon fleshy herb in dry sandy soils along east coast.
- Ebony spleenwort (Asplenium platyneuron). Uncommon creeping plant on banks in alkaline soils in eastern U.S.
- Elephant's foot (Elephantopus coelestimum). Uncommon erect herb in dry woods in eastern U.S.
- Elephant's foot (Elephantopus nudatus). Uncommon erect stout herb in sandy woods in southeastern U.S.

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- English plantain (<u>Plantago lanceolata</u>). Common introduced herb in fields and waste areas in eastern U.S.
- European bassia (Bassia hirsuta). Uncommon introduced pubsecent herb in waste areas in Massachusetts and New Jersey.
- European sea rocket (Cakile maritima). Common herb on sea beaches on east and west coasts. Tolerates some salinity.
- Evening primrose (Oenothera biennis). Frequent erect stout herb in dry soils in eastern U.S. to Minnesota.
- Evening primrose (Oenothera fruticosa). Uncommon erect herb in dry soil in eastern U.S.
- Evening primrose (Oenothera parviflora). Uncommon erect herb in dry soil in northern U.S.
- False dandelion (Agoseris heterophylla). Uncommon tufted herb in dry soils in eastern U.S.
- False dandelion (Pyrrhopappus carolinianus). Uncommon leafy herb in dry fields in southeastern U.S.
- False dragonhead (Physostegia formosior). Uncommon erect herb in moist soils in porthern U.S.
- False indigo (Amorpha fruticosa). Common shrubby herb along streams in eastern U.S.
- False loosestrife (Ludwigia palustris). Frequent procumbent herb in muddy ditches and swamps in eastern U.S. and California.
- False mallow (Sida acuta). Uncommon erect herb in dry soils in eastern U.S.
- False mallow (Sida ciliaris). Uncommon erect herb in dry soils in eastern  $\overline{U.S.}$
- False pennywort (Dichondra carolinensis). Common low creeping herb in sandy soils in southeastern U.S.
- False pimpernel (Lindernia dubia). Uncommon shrubby herb in swamps and wet soils in eastern U.S.
- False Solomon's seal (Smilacina racemosa). Uncommon leafy herb in moist shaded woods and thickets in northeastern U.S. to Georgia.
- False Solomon's seal (Smilacina stellata). Uncommon leafy herb in moist soil in eastern U.S. including parts of deep south.
- Fascicled agalinis (Agalinis fasciculata). Uncommon fine-leaved herb in marshes in southeastern U.S.
- Fiddle dock (Rumex pulcher). Common erect branched herb in waste places in southeastern U.S.
- Field daisy (Crysanthemum leucanthemum). Uncommon branched herb with showy flowers in dry soils in northeastern U.S.

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- Field mint (Mentha arvensis). Common fragrant herb in moist soils in eastern U.S.
- Field pennycress (Thlaspi arvense). Common introduced erect herb in waste areas in northeastern U.S.
- Field sowthistle (Sonchus arvensis). Common leafy herb in fields and waste areas in eastern U.S.
- Figwort (Scrophularia marilandica). Uncommon smelly herb in dry soils in eastern U.S.
- Fireweed (<u>Erechtites hieracifolia</u>). Frequent erect herb in sandy soils in eastern U.S., including sea beaches.
- Five-finger cinquefoil (Potentilla norvegica). Common, erect, stout herb in dry soil over entire U.S.
- Flax (<u>Linum alatum</u>). Uncommon slender herb in waste places and fields over entire U.S.
- Fleabane (Erigeron philadelpicus). Uncommon slender herb in fields and woods throughout U.S.
- Florida bloodleaf (<u>Iresine celosia</u>). Uncommon herb in sandy soils in Florida.
- Florida bluehearts (<u>Buchnera floridana</u>). Uncommon rough hirsute herb in sandy soils in Florida.
- Florida flaveria (<u>Flaveria floridana</u>). Uncommon erect herb in sandy soils in Florida and deep south.
- Florida pellitory (<u>Parietaria floridana</u>). Uncommon simple herb in dry sandy soils in Florida and deep south.
- Florida prickly pear cactus (Opuntia stricta). Uncommon fleshy herb in dry sandy soils in Florida.
- Flowering straws (Lygodesmia aphylla). Uncommon branched stiff herb in dry soils in northcentral U.S.
- Forget-me-not (Myosotis laxa). Common small herb in brooks and wet muddy areas in eastern U.S. to Tennessee.
- Four o'clock (Mirabilis nyctaginea). Common cultivated herb in lawns and flower gardens in dry soils over entire U.S.
- Foxglove (<u>Digitalis purpurea</u>). Frequent introduced stout erect herb in dry soils in northeastern U.S.
- Fringed loosestrife (Lysimachia ciliata). Common erect herb in moist thickets over entire U.S.
- Froelichia (<u>Froelichia floridana</u>). Common erect hairy herb in dry soils in southeastern U.S.
- Frogfuit (<u>Lippia lanceolata</u>). Common erect branched herb in wet areas in southeastern U.S.

- Frost aster (Aster pilosus). Uncommon herb in dry soils in eastern U.S.
- Galactia (Galactia macreei). Common prostrate herb in dry sandy soils in southeastern U.S.
- Galinsoga (Galinsoga ciliata). Common introduced branching herb in waste areas throughout U.S.
- Garden asparagus (Asparagus officinalis). Common cultivated herb in dry to moist soils throughout U.S.
- Gaura (Gaura angustifolia). Uncommon erect branched herb in dry soil in eastern U.S.
- Germander (<u>Teucium canadense</u>). Common erect simple herb in moist thickets and marshes in eastern U.S.
- Giant chickweed (Myosoton aquaticum). Uncommon herb in moist to wet soils in eastern U.S.
- Giant goldenrod (Solidago gigantea). Common erect branched herb with showy flowers in dry soils in eastern U.S. to plains states.
- Giant ragweed (Ambrosia trifida). Common in all moist waste areas.
- Giant vetch (<u>Vicia gigantea</u>). Uncommon cultivated legume in most soils over entire U.S.
- Glandular croton (Croton glandulosus). Common silvery branched herb in dry soils in southern U.S.
- Globe berry (Ibervillea tripartita).
- Goat's beard (<u>Tragopogon dubius</u>). Common introduced branched erect herb in fields and waste areas over northern U.S.
- Goat's beard (<u>Tragopogon major</u>). Common introduced erect herb in fields and waste areas over northern U.S.
- Golden ragwort (Senecio glabellus). Uncommon wooly herb in swamps and wet places over southern U.S.
- Goldenrod (Solidago racemosa). Uncommon erect simple herb on river banks in northeastern U.S.
- Goldenrod (Solidago rugosa). Abundant hirsute erect herb in dry soils in eastern U.S.
- Goldenrod (Solidago tenuifolia). Uncommon erect herb in dry sandy soil in eastern U.S.
- Gorse (<u>Ulex europaeus</u>). Uncommon introduced spiny branched herb in waste areas in northeastern U.S.
- Gray nicker bean (<u>Caesalpinia crista</u>). Uncommon branched herb in dry soils in Texas and plains areas.

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- Great lobelia (Loblia syphelitica). Frequent stout leafy herb in moist soils in eastern U.S.
- Great willow-herb (Epilobium angustifolium). Common erect stout herb in dry soils over northern U.S.
- Green dragon (Arisaema dracontium). Uncommon herb in moist shaded woods in eastern U.S.
- Green pigweed (Amaranthus retroflexus). Common stout erect herb in waste areas throughout U.S.
- Green-thread (Thelesperma filifolium). Uncommon branched herb in dry soils in central and southwestern U.S.
- Groundnut (Apios americana). Common climbing herb in moist soils in eastern U.S. to Kansas.
- Hairy flowered spiderwort (<u>Trandescantia hirsutiflora</u>). Uncommon procumbent herb in moist soils in eastern U.S.
- Hammerwort (Parietaria pensylvanica). Common reclining herb on dry banks in northeastern U.S.
- Harebell (Componula rotundifolia). Common herb with showy flowers in moist meadows over northern U.S. and California.
- Hawksbeard (Crepsis capillaris). Common whorled-leaf herb in fields and waste areas in northeastern U.S.
- Heartleaf nettle (Urtica chamaedryoides). Common stinging herb in thickets and open woods in eastern U.S.
- Hedge hyssop (Gratiola neglecta). Uncommon erect herb in wet areas in eastern U.S.
- Heliotrope (Heliotropium angiospermum). Uncommon branched herb in wet sandy soils and waste areas in eastern U.S.
- Heliotrope (Heliotropium polyphyllum). Uncommon branched herb in waste areas in eastern U.S.
- Hemlock parsley (Conioselimum pacificum). Uncommon leafy herb in swamps and wet areas in Pacific northwest.
- Herb-robert (Geranium robertianum). Common low branching herb in moist areas in northern U.S.
- Hoary alyssum (Berteroa incana). Common erect branched herb in waste areas in northern U.S.
- Honewort (Cryptotaenia canadensis). Uncommon erect branching herb in woods in central U.S.
- Hooker's evening primrose (Oenothera hookeri). Uncommon herb in dry soils in western U.S.
- Horsecrippler cactus (Echinocactus texansis). Common fleshy herb in dry sandy soils in Texas and southwest U.S.

- Horsemint (Monarda punctata). Common pubescent branched herb in dry fields in eastern U.S. to Kansas.
- Horse nettle (Solanum carolinese). Frequent small branched herb in waste areas and moist soils in eastern U.S.
- Horseweed (Conyza candensis). Frequent erect herb in dry sandy soils on east & gulf coasts. Tolerates slight salinity.
- Horseweed fleabone (Erigeron canadensis). Frequent branched herb in fields and waste areas throughout U.S.
- Illinois bundleflower (Desmanthus illinoensis). Uncommon branched shrub in fields and dry soils in northern U.S.
- Indian basket (Gaillardia pulchella). Common branched herb with showy flowers in dry sandy soils on east and gulf coasts. Tolerates slight salinity.
- Indian hemp (Apocynum cannabinum). Uncommon in moist sandy soils in northeastern U.S.
- Ironweed (Veronia altissima). Common procumbent herb in brooks and swamps over entire U.S.
- Joe-pye-weed (Eupatorium maculatum). Abundant stout erect herb in moist soils in southeastern U.S.
- Jointweed (<u>Polygonella articulata</u>). Common wiry herb on sandy coastal and Great Lakes shores in eastern U. S.
- June bean (Canavalia maritima). Uncommon herb in moist sandy soils on east and west coasts.
- Karnes sensitivebriar (<u>Schrankia lalidens</u>). Uncommon branched herb in dry soils in southeastern U.S.
- Kidder daisy (Aphanostephus kidderi). Uncommon erect branched herbs in dry soils in central and southern U.S.
- Kidneyleaf buttercup (Ranunculus abortivus). Common branched herb in woods and moist soils in eastern U.S.
- Kitchen sorrel (Rumex acetosa). Frequent introduced erect leafy herb in waste areas in northeastern U.S.
- Knotweed leafflower (Phyllanthus polygonoides). Uncommon slender erect herb in sandy soil in eastern U.S.
- Ladies' tresses (Spilanthes americana). Frequent branched herb in wet soils in eastern U.S.
- Lady's sorrel (Oxalis europaea). Common introduced low branching herb in woods, fields, and waste areas in eastern U.S.
- Lambsquarters (Chenopodium album). Abundant branched erect herb in fields and waste areas throughout U.S.

- Lance-leafed loosestrife (Lysimachia hybrida). Uncommon erect branched herb in waste areas, fields, and thickets in eastern U.S.
- Late flowering thoroughwort (Eupatorium serotinum). Common branched herb in moist soils in eastern U.S. to Kansas.
- Lazy daisy (Aphanostephus skirrhobosis). Uncommon erect branched herb in dry soils in southwestern U. S. and Texas.
- Lead plant (Amorpha herbacea). Common bushy herb in dry soils in central and southwestern U. S.
- Leafy-bracted beggartick (Bidens comosa). Common erect branched herb in wet soils.
- Leavenworth vetch (<u>Vicia leavenworthii</u>). Uncommon cultivated legume in most soils in southeastern U. S.
- Lesser ladies' tresses (Spilanthes ovalis). Common branching herb in wet soils in eastern U. S.
- Liverleaf (Hepatica acutiloba). Uncommon leafy herb in woods in north-eastern U. S. to Minnesota.
- Loosestrife (Lythrum alatum). Common erect herb in moist areas in northeastern U. S.
- Loosestrife (Lythrum lanceolatum). Common erect herb in moist areas in southeastern U. S.
- Low poppymallow (<u>Callirhoe involucrata</u>). Uncommon leafy herb with showy flowers in dry soil in central U. S.
- Madacascar periwinkle (Catharanthus roseus).
- Mad-dog skullcap (<u>Scutellaria lateriflora</u>). Common erect leafy herb in wet places in eastern U. S.
- Mallow (Malvoviscus arboreus). Uncommon shrubby herb with showy flowers in waste areas in eastern U. S.
- Manzella coreopsis (Coreopsis cardaminaefolia). Uncommon branched herb in moist soils in southern U. S.
- Maritime pinweed (Lechea maritima). Uncommon tufted stout herb on sandy sea-shores in eastern U. S.
- Marsh bedstraw (<u>Galvin</u> <u>obtusum</u>). Common clinging herb in wet soils in eastern U. S.
- Marsh cleavers (<u>Galvim tinctorium</u>). Common clinging herb in wet soils in northeastern U. S.
- Marsh fleabane (<u>Pluchea camphorota</u>). Frequent branched herb in salt marshes on east and gulf coasts. Tolerates some salinity.

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- Marsh marigold (<u>Caltha biflora</u>). Uncommon stout herb in swamps and meadows in northeastern U.S.
- Marsh monkey flower (Mimulus guttatus). Uncommon stout simple herb in wet meadows in California, New York, and Connecticut.
- Marsh skullcap (Scutellaria galericulata). Uncommon erect leafy herb in wet soils in eastern U.S.
- Marsh vetchling (Lathyrus palustris). Common twining legume in wet soils in eastern U.S.
- Masterwort (Heracleum maximum). Common stout herb in moist soil in northeastern U.S.
- Mat bluets (Hedyotis humifusa). Uncommon branched erect herb in wet open areas in eastern U.S.
- Mayweed (Antheneis cotula). Common smelly branched herb in fields and waste areas over entire U.S.
- Meadow goldenrod (Solidago canadensis). Frequent erect herb in meadows and fields over entire U.S.
- Mexican tea (Chenopodium ambrosoides). Common branched herb in waste places over entire U.S.
- Milk purslane (Euphorbia supina). Uncommon erect slender herb in dry soil in eastern U.S.
- Milk vetch (Astragulus canadensis). Uncommon branched herb along streams in northern U.S.
- Milkweed (Asclepias oenotheroides). Uncommon simple herb in moist soils in northern U.S.
- Mock pennyroyal (Hedeoma hispida). Common erect branched herb in dry plains in central U.S.
- Monkey ear (Mimulus ringens). Common erect 4-sided herb in swamps and along streams in northern U.S.
- Mouse ear (Cerastium brachypodium). Common tufted herb in dry soil in central U.S.
- Mouse-ear chickweed (<u>Cerastium vulgatum</u>). Common introduced tufted herb in fields and woods over entire U.S.
- Musk thistle (<u>Carduus nutans</u>). Common spiny branched introduced herb in waste areas in northeastern U.S.
- Naked prairie-coneflower (<u>Ratibida peduncularis</u>). Common rough branched herb in dry prairies in central U.S.
- Neptunia (Neptunia lutea).
- New England aster (Aster novae-angliae). Common stout erect leafy herb with showy flowers in fields and swamps in northern U.S.

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- Night-flowering catchfly (Silene noctiflora). Common stout erect herb in waste areas in northern U.S.
- Nightshade (Solanum dulcamara). Common low herb in marshy areas in eastern U.S.
- Nightshade (Solanum gracile). Uncommon low herb in moist soils in eastern U.S.
- Nipplehead cactus (Mammillaria guncmifera). Common fleshy herb in dry sandy soils in Texas and southeast.
- Nodding beggartick (Bidens arnua). Common erect branched herb in moist soils in eastern U.S.
- Nodding bluets (<u>Hedyotis subviscosa</u>). Common branched erect herb in wet open areas in eastern U.S.
- Northern bedstraw (Galium boreale). Common clinging herb in moist areas in northern U.S.
- Northern dune tansy (<u>Tanacetum douglasii</u>). Uncommon stout herb with showy flowers in moist soil in northern U.S.
- Northern silene (Stellaria calycantha). Uncommon procumbent herb in wet waste areas in northern U.S.
- Nuttall (Trepocarpus arethusae).
- Old-man-in-the-spring (Senecio vulvaris). Common branched herb in waste areas and cultivated soils in northern U.S.
- Orange hawkweed (<u>Hieracium aurantiacum</u>). Common hirsute tufted herb in fields, woods, and roadsides in northeastern U.S.
- Ox-eye (Heliopsis helianthoides). Common branched herb with showy flowers in open areas in northern U.S. and Florida.
- Pacific marsh cinquefoil (<u>Potentilla pacifica</u>). Common branched procumbent herb in sandy soil on Pacific coast.
- Pacific water parsley (<u>Denanthe sarmentosa</u>). Uncommon slender herb in wet areas and swamps in western U.S.
- Paintbrush owl-clover (Orthocarpus castillyoides). Uncommon erect herb in dry soils in western U.S.
- Pale goosefoot (Chenopodium albescens). Uncommon branched dense herb in dry soils and waste areas in eastern U.S.
- Palmer amaranth (Amarathus palmeri). Uncommon erect branched herb in dry soils in southwestern U.S. and northeastern U.S.
- Parsnip (Pastinaca sativa). Common leafy branching herb in waste areas in eastern U.S.
- Partridge pea (<u>Cassia fasciculata</u>). Frequent branched legume with showy flowers in dry soils in southeastern U.S. Cultivated for wildfowl food.

- Passion flower (<u>Passiflora lutea</u>). Uncommon viney herb in thickets and dry soils in southeastern U.S.
- Patience dock (Rumex patientia). Common simple erect herb in waste areas in northern U.S.
- Pea (Daubentonia punicea).
- Pearly everlasting (Anaphalis margaritacea). Uncommon woolly whitish herb in dry soils in northern U.S.
- Pellitory (Parietaria praetermissa). Uncommon slender herb in dry soils in northern U.S.
- Pencil flower (Stylosanthes viscosa). Uncommon wiry branched herb in dry soils in eastern U.S.
- Peppergrass (Lepidium densiflorum). Common introduced basal-leaved herb in dry soils in northern U.S.
- Pickpocket (Capsilla bursa-pastoris). Frequent introduced basal-leaved herb in waste areas and fields over northern U.S.
- Pineapple weed (Matricaria matricarioides). Common leafy herb in waste areas over entire U.S.
- Pink purslane (Portulaca pilosa). Uncommon hirsute spreading herb in dry soils in southeastern U.S.
- Pinweed (Stipulicida setacea). Frequent tufted, branching herb in waste areas over entire U.S.
- Plains coreopsis (Coreopsis tinctoria). Frequent branched herb with showy flowers in moist soils in central U.S.
- Plains gaura (Gaura brachycarpa). Common erect branched herb in dry soils in central U.S.
- Plantain (<u>Plantago hybrida</u>). Common small herb in dry soils in eastern U.S.
- Plantain (Plantago rugellit). Common small herb in fields, woods, and waste areas in northern and southcentral U.S.
- Pokeberry (Phytolacca americana). Common red branched herb in waste areas and dry soils in eastern U.S.
- Poor joe (Diodia teres). Uncommon rigid rough branched herb in dry sandy soil over entire U.S. except far west.
- Popinac (Leucaena leucocephala).
- Prairie agalinis (Aalinis heterophylla). Common small branched herb in wet woods and on prairies in southcentral U.S.
- Prairie bluets (Hedyotis nigricans). Common very small herb in dry soil in central U.S.

- Prairie parsley (<u>Polytaenia</u> <u>nuttallii</u>). Uncommon leafy herb in dry soils in central U.S.
- Prickly false mallow (Sida spinosa). Common spiny erect branched herb in waste areas in eastern U.S. to Texas.
- Prickly pear cactus (Opuntia humifusa). Common fleshy herb in dry sandy soils and along coasts and islands in southern U.S.
- Prickly sowthistle (Sonchus asper). Common erect leafy herb in waste areas over entire U.S.
- Prostrate starwort (Stellaria prostrata). Uncommon prostrate weak herb in fields and moist areas in eastern U.S.
- Purple agalinis (Aglinis purpurea). Common branched slender herb in moist fields and meadows in eastern U.S. to Missouri.
- Purple cudweed (Gnaphalium purpureum). Uncommon rough erect herb in dry sandy soils in eastern U.S. to Kansas.
- Purslane (Portulaca oleracea). Common prostrate branching herb in fields and waste areas over entire U.S.
- Purslane speedwell (Veronica peregrina). Common branched herb in moist areas and cultivated fields over entire U.S.
- Queen Anne's lace (<u>Daucus carota</u>). Frequent branched herb with showy flowers in fields and waste areas over entire U.S.
- Rabbitfoot clover (<u>Trifolium arvense</u>). Common branched herb in fields and waste areas in eastern U.S. to Missouri.
- Rabbit tobacco (Gnaphalium obtusifolium). Common erect branched herb in dry open areas in eastern U.S. to Kansas.
- Ragwort (Senecio imparipinnatus). Uncommon branched herb in waste areas in eastern U.S.
- Rattlebean (Sesbania drummondii). Uncommon branched legume in moist soils in southeastern U.S.
- Rattlebox (Crotalaria mucronata). Uncommon branched legume in dry open areas in southeastern U.S.
- Red clover (<u>Trifolium pratense</u>). Frequent branched herb with showy flowers in fields and waste areas in eastern and northern U.S.
- Red seeded plantain (<u>Plantago rhodosperma</u>). Uncommon small herb in waste areas in eastern U.S.
- Red spiderling (Boerhaavia coccinea).
- Resinweed (Grindela integrifolia). Uncommon branched erect herb with showy flowers in dry soils in eastern U.S. to Texas.
- Retama (Parkinsonia aculeata).

- Rhombic evening primrose (Oenothera rhombipetala). Uncommon erect herb in dry soils and on prairies in central U.S.
- Richardia (Richardia brasiliensis).
- Ridgeseed spurge (Euphorbia glyptosperma). Common branched prostrate herb in sandy soils in eastern U.S. to Texas.
- Rio Grande phlox (Phlox glabriflora). Uncommon erect herb with showy flowers in sandy soils in Texas.
- Rose pink (Sabatia campestris). Common branched 4-angled herb on prairies and in dry soils in central U.S.
- Rouge plant (Rivina humilis). Uncommon herb in sandy soils in Florida.
- Rough avens (Geum virginianum). Common branched stout low herb in moist soils in northern U.S.
- Rough hedge nettle (Stachys hispida). Common erect rough hirsute herb in moist soil in eastern U.S. to Minnesota.
- Round copperleaf (Acalypha radians). Uncommon copper-colored herb in dry woods and thickets in eastern U.S.
- Roundleaf scuefpea (<u>Psoralea rhombifolia</u>). Uncommon branched herb in dry soils in central U.S.
- Sabatia (Sabatia stellaris). Common branched herb in salt meadows and sea beaches on east coast.
- Saltmarsh aster (Aster tenuifolius). Common branched herb in brackish and salt marshes on east and gulf coasts.
- Saltmarsh loosestrife (Lythrum lineare). Common branched slender herb in brackish and salt marshes on east and gulf coasts.
- Saltmarsh mallow (Kostelalzkya virginica). Uncommon erect branching herb with showy flowers in brackish and salt marshes on east and gulf coasts.
- Saltmarsh sand spurry (Spergularia marina). Common spiny herb in brackish and salt marshes and sandy shores on east and gulf coasts.
- Saltweed (Philoxerus vermicularis). Uncommon branched herb in brackish and salt sandy soils on east coast.
- Sandmat (<u>Cardionema racesissima</u>). Uncommon herb in coastal sandy soils in <u>Pacific northwest</u>.
- Sand rose-gentian (Sabatia arenicola). Uncommon branched herb in sandy soils in eastern U.S.
- Sand spurry (Spergularia platensis). Uncommon prostrate branched herb in sandy soils in eastern U.S.
- Sand spurry (Spergularia echinosperma). Uncommon branched herb in moist sandy soils in eastern U.S.

- Scarlet pea (Indigofera minata). Uncommon branched legume in sandy soils in southeastern U.S.
- Scarlet pimpernel (Anagallis arvensis). Common branched herb in waste areas over entire U.S.
- Scrambled eggs (Corydalis micrantha). Uncommon slender branched herb in woods in southern and central U.S.
- Seabeach purslane (Arenaria peploides). Common fleshy stout herb in seashore sands on east coast.
- Seabeach sandwort (Honkenya peploides). Common fleshy herb on sea beaches on east and gulf coasts.
- Sea blite (Suaeda <u>linearis</u>). Common on east & Gulf coast islands and beaches. Salt tolerent.
- Sea blite (Suaeda maritima). Common on east and gulf coast islands and beaches. Salt tolerent.
- Sea ox-eye (Borrichia frutescens). Common on coastal islands and beaches on east and gulf coasts. Salt tolerent.
- Sea plantain (<u>Plantago maritima</u>). Common small herb in sandy soils in Pacific northwest.
- Sea purslane (Sesuvium maritimum). Common branched herb on sandy beaches on east and gulf coasts.
- Sea purslane (Sesuvium portulacastrum). Common herb on sandy beaches on east and gulf coasts.
- Sea rocket (<u>Cakile fusiformis</u>). Common fleshy branched herb on sandy shores in eastern U.S.
- Sea rocket (<u>Cakile harperi</u>). Uncommon fleshy branched herb on sandy shores in eastern U.S.
- Seashore lupine (<u>Lupinus littoralis</u>). Common erect branched herb on sandy shores in the Pacific northwest.
- Seaside agalinis (Agalinis maritima). Common fleshy erect branched herb in salt marshes on east coast.
- Seaside evening primrose (Oenothera humifusa). Common branching herb with showy flowers on sand dunes and beaches on east and gulf coasts.
- Seaside geradia (Gerardia maritima). Common erect fleshy herb in salt marshes and meadows on east coast.
- Seaside heliotrope (Heliotropium curassavicum). Common fleshy branched herb in sandy seashores on east and gulf coasts.
- Seaside mahoe (Thespesia populnea).

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- Seaside goldenrod (Solidago sempervirens). Frequent, erect, stout herb in sandy soils on east and gulf coasts.
- Sea-watch (Angelica lucida). Uncommon erect branching herb in swamps and moist areas in Pacific northwest.
- Sensitivebriar (Schrankia microphylla). Common large branching prostrate herb in dry soils in southern U.S.
- Sensitivebriar (Seobania exaltata). Uncommon branching herb with showy flowers in fields and waste areas in eastern U.S.
- Shade betony (Stachys crenata). Uncommon erect slender herb in moist thickets and woods in western U.S.
- Sheep sorrel (Rumex acetosella). Common erect leafy herb in waste areas over entire U.S.
- Shore orache (Atriplex patula). Common branched shrubby herb on sandy shores on east and gulf coasts.
- Showy false mallow (Sida lindheimeri). Uncommon erect branched herb with showy flowers in dry soils in southern U.S.
- Showy primrose (Oenothera speciosa). Uncommon branching herb with showy flowers in sandy soils in eastern U.S.
- Silver bursage (Ambrosia chamissonis). Uncommon erect branched herb in dry waste areas in Pacific northwest.
- Silvery cinquefoil (<u>Potentilla argentea</u>). Uncommon branched tufted herb in dry soils in northcentral U.S.
- Silverleaf sunflower (Helianthus argophyllus). Uncommon erect herb with showy flowers in prairies and fields in southern U.S.
- Silverweed (<u>Potentilla anserina</u>). Common tufted whitish herb on shores and in salt marshes on east and west coasts.
- Skullcap (Scutelloria epilobiifolia). Uncommon erect branched herb in open woods in eastern U.S.
- Skullcap (Scutellaria muriculata). Uncommon erect branched herb in waste areas and woods in eastern U.S.
- Skunk cabbage (Lysichitum americanum). Frequent herb in moist soils in Pacific northwest.
- Sleepy catchfly (Silene antirrhina). Common erect slender herb in waste places and woods in eastern U.S.
- Slender amaranth (Amaranthus viridus). Uncommon erect leafy herb in waste areas in eastern U.S.
- Slender goldenweed (Croptilon divaricatum). Uncommon herb in waste areas in eastern U.S.
- Slimlobe celery (Apium leptophyllm). Uncommon slender herb in waste areas in southern U.S.

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- Slimpod milk vetch (Astragalus leptocarpus). Uncommon slender erect herb in dry soils in central U.S.
- Small bedstraw (Galium trifidum). Uncommon clinging herb in moist soils in Pacific northwest.
- Small coast germander (<u>Teucrium cubense</u>). Uncommon erect branched herb in moist soils near coast in eastern U.S.
- Small fleabane (Erigeron pasillus). Uncommon branched herb in fields and moist soils in eastern U.S.
- Smooth hedge nettle (<u>Stachys tenuifolia</u>). Uncommon smooth erect branched herb in moist fields and thickets in eastern U.S.
- Snakeroot (Sanicula canadensis). Uncommon branched herb in dry soils in eastern U.S.
- Snakeroot (Sanicula marilandica). Uncommon branched erect herb in woods and dry soils in southeastern U.S.
- Snapdragon vine (Maurandya antirrhiniflora).
- Sneezeweed (<u>Helanium autumnale</u>). Common branched herb with showy flowers in swamps, woods, and wet meadows in eastern U.S. Also called swamp sunflower.
- Snoutbean (Phynchosia minima). Uncommon erect stout herb in dry woods soils in southeastern U.S. to Texas.
- Soft aster (Heterotheca pilosa). Uncommon erect hirsute herb in dry soil in eastern U.S.
- Solomon's seal (Polygonatum canaliculatum). Common herb in moist woods and along streams in eastern U.S.
- Sorrel (Rumex hastatulus). Uncommon woody herb on east coast and in dry soils in central U.S.
- Southern peppergrass (<u>Lepidium austrinum</u>). Common basal-leaved herb in dry soils in southeastern U.S.
- Southern ragweed ( $\underline{\text{Ambrosia}}$   $\underline{\text{bidentata}}$ ). Common branched leaf herb on prairies in southern  $\overline{\text{U.S.}}$
- Soybean (Glycine max). Abundant cultivated legume in most soils over entire U.S.
- Spatulate-leaved frogfruit (<u>Lippia nodiflora</u>). Common branched herb in moist soils in southern U.S.
- Spanish moss (<u>Tillandsia usneoides</u>). Common parasitic herb growing from mature trees in deep south, especially near gulf coast.
- Spider lily (<u>Hymenocallis latifolia</u>). Common cultivated bulbous herb in dry soils in southeastern U.S.

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- Spiderling (Boerhaavia diffusa).
- Spiderwort (<u>Transdescantia ohiensis</u>). Uncommon weak-stemmed herb in moist soils in central U.S.
- Spiked loosestrife (Lythrum salicaria). Common erect branched herb in swamps and wet meadows in northeastern U.S.
- Spiny pigweed (Amaranthus spinosus). Common erect spiny herb in rich moist areas in southeastern U.S.
- Spotted cats-ear (<u>Hypochaeris radicata</u>). Common basal-leaved herb in waste areas of northern U.S.
- Spotted spurge (<u>Euphorbia maculata</u>). Common hirsute branched herb in dry soil in eastern U.S.
- Spotted star-thistle (Centaurea maculosa). Uncommon branded herb in waste areas in northeastern U.S.
- Spotted touch-me-not (Impatiens capensis). Uncommon branched herb in moist soils in northern U.S.
- Springbark clover (<u>Trifolium wormskjoldii</u>). Uncommon branched herb in sandy soils in Pacific northwest.
- Spring ladies' tresses (Spilanthes vernalis). Common branched herb in moist or wet soils in eastern U.S.
- Spurge (Chamaesyce blodgetti). Uncommon branched herb in moist soils in eastern U.S.
- Spurge (Chamaesyce hirta). Uncommon branched herb in moist soils in eastern U.S.
- Spurge (Euphorbia dentata). Uncommon branched herb in moist soils in southeastern U.S.
- Spurge (Euphorbia polygonifolia). Common branched prostrate herb on sandy shores on east coast and Great Lakes.
- Spurge (Euphorbia serpens). Uncommon branched small herb in waste areas in northcentral U.S.
- Stickweed (Hackelia virginiana).
- Stinging nettle (Urtica dioica). Frequent branched stinging herb in dry woods and thickets over entire U.S.
- Stonecrop (Sedum sarmentosum). Uncommon tufted herb in dry soils in eastern U.S.
- String lily (Crinum americanum).
- Swamp milkweed (Asclepias incarnata). Common erect stout herb in moist soils in eastern U.S.

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- Sundrops (Oemothera perennis). Uncommon erect herb with showy flowers in dry soils in northern U.S.
- Sunflower (Helianthus debilis). Uncommon erect herb with showy flowers in eastern U.S.
- Swallowwort (Cynanchum angustifolium). Uncommon viney herb with large pads in moist soils and thickets in eastern U.S.
- Swamp beggartick (Bidens connata). Common branched erect herb in swamps and moist soil in eastern U.S.
- Swamp dock (Rumex verticillatus). Common erect leafy herb in wet soils in eastern U.S.
- Swamp loosestrife (Lysimachia terrestris). Common branched herb in swamps and wet soils in southeastern U.S.
- Swamp rose mallow (<u>Hibiscus palustris</u>). Common shrubby herb with showy flowers in wet soils and ditches in southeastern U.S.
- Sweet clover (Meliotus indicus). Abundant branched herb in waste and cultivated areas in Pacific porthwest.
- Tall beggartick (<u>Bidens vulgata</u>). Common erect herb in moist soil over entire soils.
- Tall bellflower (Campanula americana). Uncommon erect herb in moist thickets and woods in central U.S.
- Tall unquefoil (Potentilla arguta). Uncommon erect stout herb in dry soils in northeastern U.S.
- Tall coneflower (Rudbeckia laciniata). Common branched herb with showy flowers in moist thickets over entire U.S.
- Tall goldenrod (Solidago altissima). Common stout hirsute herb with showy flowers in dry soil in eastern U.S.
- Tallow plantain (<u>Plantago hookeriana</u>). Uncommon small herb in dry soils in eastern U.S.
- Tall prairie-gentian (Eustoma exaltatum). Uncommon erect stout herb in dry soils in southcentral U.S.
- Tall wormwood (Artemisia caudata). Common slender leafy herb in dry sandy soils in eastern U.S. Abundant on sea beaches.
- Tansy ragwort (Senecio jacobaea). Common woolly stout herb in waste areas in northeastern U.S.
- Tege guaje (<u>Leucaena pulnerulenta</u>). Uncommon tropical herb in sandy soils in Texas.
- Texas frogfruit (Phylla incisa). Uncommon branched herb in moist soils in Texas.
- Texas geranium (Geranium texanum). Uncommon branched low herb in dry soils in Texas.

- Texas nightshade (Solanum triquetrum). Uncommon herb in waste areas and moist thickets in Texas.
- Texas palafoxia (<u>Palafoxia texana</u>). Uncommon stout erect herb in dry soil in Texas.
- Texas prickly pear cactus (Opuntia lindheimeri). Common fleshy herb in dry sandy soils in Texas and southwest U.S.
- Texas snoutbean (Rhynchosia texana). Uncommon branched herb in dry sandy soils in Texas.
- Texas vervain (Verbena halei). Common erect stiff herb in waste areas in Texas.
- Thistle (Carduus smallii). Uncommon erect spiny herb in moist soils in eastern U.S.
- Thornless thistle (Centaurea americana). Common rough stout herb in dry soils in southern U.S.
- Thoroughwort (Eupatorium hyssopifolium). Common rough bushy herb in dry fields in eastern U.S.
- Three-seeded mercury (Acalypha rhombiodea). Common erect branched herb in dry woods and thickets in eastern U.S.
- Tick trefoil (Desmodium glabellum). Common procumbent herb in dry sandy woods in eastern U.S.
- Toadflax (<u>Linaria canadensis</u>). Common fleshy erect herb in dry soils over entire U.S.
- Touch-me-not (Impatiens biflora). Common branched herb with showy flowers in moist soils over northern U.S.
- Touch-me-not (Impatiens noli-tangere). Uncommon branched herb with showy flowers in moist soils in northeastern U.S.
- Trailing wild bean (Strophostyles helvola). Common prostrate twining herb in sandy soil in eastern U.S.
- Tread softly (Cnidoscolus stimulosus). Uncommon stinging bristly herb in dry sandy soils on gulf and east coasts.
- Tropical neptunia (Neptunia pubescens).
- True aloe (Aloe vera). Uncommon tropical fleshy herb in sandy soils in Texas and Florida.
- Tumble mustard (Sisybrium altissimum). Common erect rigid herb in waste areas over northern U.S.
- Varnish leaf (Dondonaea viscosa).
- Velvetleaf (Abutilion theosprasti). Uncommon stout velvety herb in waste areas in eastern U.S. Common in southeastern U.S.

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- Venus' looking glass (Specularia biflora). Uncommon slender herb in dry soil in southern U.S.
- Vervain (Verbena bonaniensis). Uncommon erect herb in dry soils in eastern U.S.
- Vervain (Verbena brasiliensis). Uncommon erect herb in dry soils in eastern U.S.
- Vervain (Verbena scabra). Uncommon erect herb in dry soils in eastern U.S.
- Vetch (Vicia angustifolia). Frequent twining herb in dry soils and waste areas in southeastern U.S.
- Vetch (<u>Vicia americana</u>). Frequent, twining herb with showy flowers in dry soils and pastures in southeastern U.S.
- Violet (Violet spp.). Genus common to abundant in woods and thickets throughout entire U.S.
- Virginia dayflower (Commelina virginica). Common procumbent herb in moist soils in southeastern U.S.
- Virginia peppergrass (Pepidium virginicum). Frequent herb in dry sandy soils in eastern U.S. Abundant on sandy east coast.
- Vulpia (Vulpia octoflora).
- Water amaranth (Amaranthus cannabinis). Uncommon branched erect herb in swamps and on river shores in eastern U.S.
- Water amaranth (Amaranthus tamariscinus). Uncommon branched erect herb in swamps in southwest U.S. and Texas.
- Water amaranth (Amaranthus tuberculatus). Uncommon branched erect herb in wet places in eastern U.S.
- Water dock (Rumex orbiculatus). Common stout erect herb in swamps and wet soil in eastern U.S.
- Water hemlock (Cicuta bulbifera). Uncommon stout erect branching herb in swamps and wet places in eastern U.S.
- Water hemp (Acnida altissima). Uncommon erect stout herb in wet soils in eastern U.S.
- Water hemp (Acnida fasciculata). Uncommon branched erect herb in swamps in southern U.S.
- Water horehound (Lycopus americanus). Common stiff erect herb in wet soils over entire U.S.
- Water horehound (Lycopus rubellus). Uncommon erect branched herb in wet soils in eastern U.S. to Minnesota.
- Water horehound (Lycopus virginicus). Uncommon erect herb in wet soil in eastern U.S.

- Watson's willow-herb (Epilobium watsonii). Uncommon erect stout herb in moist soils in Pacific northwest.
- Western mugwort (Artemisia ludoirciana). Common woolly branched herb in dry soil in western U.S.
- Western ragweed (Ambrosia psilostachya). Common thick-leaved herb in moist open soils in western U.S.
- White bog-orchid (<u>Habenaria</u> <u>dilatata</u>). Uncommon leafy herb in bogs and wet woods in northern U.S.
- White campion (Lychnis alba). Common pubescent branching herb in waste areas in northeastern U.S.
- White clover (<u>Trifolium repens</u>). Abundant branching low herb in moist soils over entire U.S.
- White heath aster (Aster ericoides). Common hirsute bushy herb in dry soil in northern U.S.
- White milkwort (<u>Polygala alba</u>). Uncommon woody erect herb in prairie soils in central U.S.
- White snakeroot (Eupatorium rugosum). Uncommon herb in dry soils in northern U.S.
- White sweet clover (Melilotus albus). Frequent erect branched herb in waste areas in eastern U.S.
- White thoroughwort (Eupatorium album). Uncommon branched herb in sandy soils in eastern U.S.
- Whorled milkweed (Aselepias verticillata). Uncommon whorl-leaved herb in dry soils in eastern U.S.
- Wild balsam apple (Momordica charantia). Uncommon twining herb along streams and in waste areas in eastern U.S.
- Wild blue lettuce (<u>Lactuca canadensis</u>). Common leafy erect herb in moist soils and waste areas in eastern U.S. Frequent in deep south.
- Wild columbine (Aquilegia candensis). Uncommon branching herb in rocky woods in eastern U.S.
- Wild cucumber (Echinocystis lobata). Uncommon branched twining herb in thickets in eastern U.S.
- Wild hemp (Cannabis sativa). Common introduced erect herb in waste areas in northern U.S.
- Wild lettuce (Lactuca biennis). Common erect herb in dry soils and waste areas in eastern U.S.
- Wild lettuce (Lactuca floridana). Common herb in waste areas in Florida and deep south.

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- Wild lettuce (Lactuca graminifolia). Uncommon erect herb in dry soils in northern and eastern U.S.
- Wild lettuce (Lactuca hirsuta). Uncommon hirsute erect herb in dry soil in eastern U.S.
- Wild lettuce (Lactuca scariola). Common prickly herb in fields and waste areas in northern U.S.
- Willow dock (Rumex salicifolius). Common branched herb in moist soils in eastern U.S.
- Willow-herb (<u>Epilobium glandulosum</u>). Common erect herb in moist soils in eastern U.S.
- Willow-leafed dock (Rumex mexicanus). Common branched herb in moist soils and waste areas in eastern U.S.
- Winged pigweed (Cycloloma atriplicifolium). Uncommon bushy herb along streams and in moist soils in central U.S.
- Wiry blue-eye-grass (Sisyrinchium biforme). Uncommon leafy herb in grassy fields in eastern U.S.
- Wood nettle (Laportea canadensis). Frequent to abundant herb in open woods and thickets in central U.S.
- Wood sorrel (Oxalis dillenii). Uncommon low branching herb in fields and waste places in eastern U.S.
- Woolly croton (Croton capitatus). Frequent silvery branched herb in dry soils in southern U.S.
- Woolly stemodia (Stemodia tomentosa). Uncommon hirsute herb in waste areas in northern U.S.
- Wormseed mustard (Erysimum cheiranthoides). Common erect branched herb along streams and fields in northern U.S.
- Wormwood (Artemisia biennis). Common leafy branched herb in waste areas throughout U.S.
- Wormwood (Artemisia serrata). Uncommon stout branched herb in dry soils and on prairies in eastern and central U.S.
- Yarrow (Achillea millefolium). Common erect herb in waste areas in eastern U.S.
- Yellow abronia (Abronia latifolia). Uncommon erect branching herb in dry soils in Pacific northwest.
- Yellow clover (<u>Trifolium agrarum</u>). Common to frequent low herb in most soils in eastern U.S., especially north.
- Yellow cress (Rorippa palustris). Uncommon branching herb in lakes, streams, and wet areas in northern U.S.
- Yellow cress (Rorippa teres). Uncommon branched herb in wet areas in northern U.S.

- Yellow dock (Fumex persicaroides). Common stout branched herb on sandy shores across northern U.S.
- Yellow flag (<u>Iris pseudacorus</u>). Uncommon fleshy herb in moist to dry soils in northern U.S.
- Yellow parentucellia (Parentucellia viscosa).
- Yellow sweet clover (Metitotus officinalis). Common low herb in most soils in eastern U.S.
- Yellow wood sorrel (Oxalis stricta). Common branched herb in waste areas & fields in eastern U.S., especially south.
- Yerba (Eclipta alba). Common rough herb along streams and in waste areas in eastern U.S. to Nebraska.
- ---- (Calylophus australis).
- ---- (Euthamia leptocephala). Uncommon branched herb in moist soil in southcentral U.S. and Texas.
- ---- (<u>Hemicarpa micrantha</u>). Uncommon tufted herb in moist sandy soil over entire U.S. except southwest.
- ---- (Limnosciadium pumilum).
- ---- (Matelea decipiens).
- ---- (Scaevola plumieri).
- ---- (<u>Thelypteris</u> <u>normalis</u>).
- ---- (Wedelia tribolata).

## VINES

- Beach morning glory (<u>Ipomoea stolonifera</u>). Common vine of dunes and sandy areas on east and gulf coasts.
- Bittersweet (Celastrus orbiculatus). Common woody vine in woods areas in eastern U.S.
- Canada moonseed (Menispermum canadense). Uncommon to common vine in thickets and woods, clambering over vegetation and climbing in trees, in eastern U.S.
- Carolina moonseed (Menispermum carolinum). Uncommon to common vine in thickets and woods, clambering over vegetation and climbing in trees, in southeastern U.S.

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- Catbriar (Smilax hispida). Uncommon to common vine climbing in trees and thickets in eastern U.S.
- Climbing milkweed (bindweed) (<u>Cynanchum palustre</u>). Frequent vine clambering over other vegetation in open areas in eastern U.S.
- Common dodder (Cuscuta obtusiflora). Uncommon vine growing on other vegetation in eastern U.S.
- Common greenbriar (Smilax rotundifolia). Common vine in open areas and in thickets in eastern U.S.
- Cusp dodder (Cuscuta cuspidata). Rare vine growing on other vegetation in southern U.S.
- Field dodder (<u>Cuscuta pentagona</u>). Rare vine growing on other vegetation in southern U.S.
- Fox grape (<u>Vitus labrusca</u>). Common woody vine climbing in thickets and woods in eastern U.S.
- Fringed catherier (Smilax bona-nox). Common vine climbing in thickets and growing in open areas in eastern U.S.
- Frost grape (<u>Vitus vulpina</u>). Common vine growing in open areas and thickets in northeastern U.S.
- Hedge bindweed (Convolvulus sepium). Common to abundant vine clambering over vegetation in eastern U.S.
- Japanese honeysuckle (Lonicera japonica). Frequent woody vine clambering over other vegetation throughout entire U.S.
- Marine ivy (<u>Cissus incisa</u>). Uncommon to common vine clambering over vegetation in sandy open areas in eastern U.S.
- Moonflower (Ipomoea tuba). Abundant vine on beaches in Florida.
- Muscadine (Vitus rotundifolia). Common woody vine climbing high in trees and thickets in southeastern U.S. Also occurs in open areas.
- Pacific morning glory (Convolvulus soldanella). Uncommon to common vine on beaches and sandy areas on west coast.
- Peppervine (Ampelopis arborea). Common vine clambering over vegetation or climbing high in trees in eastern U.S.
- Poison ivy (Rhus radicans). Frequent ground cover under trees and climbing onto trees throughout entire U.S.
- Railroad vine (<u>Ipomoea pes-caprae</u>). Abundant vine on beaches and tidal areas in Florida.
- Riverbank grape (Vitus riparia). Common woody vine climbing high in trees or in open areas in eastern U.S.
- Saltmarsh morning glory (<u>Ipomoea sagittata</u>). Common vine clambering over vegetation in eastern U.S.

- Sharppod morning glory (<u>Ipomoea trichocarpa</u>). Uncommon vine clambering over vegetation in open areas.
- Simple-leaved peppervine (Ampelopsis cordata). Uncommon to common vine on woods edge in eastern U.S.
- Strangler fig (<u>Ficus aurea</u>). Uncommon vine only in Florida climbing high into woody vegetation.
- Summer grape (Vitus <u>aestivalis</u>). Common vine clambering over vegetation or climbing high into woods and thickets in eastern U.S.
- Supplejack (Berchemia scandens). Common woody vine climbing high in trees and thickets in eastern U.S.
- Trumpet creeper (<u>Campsis radicans</u>). Common woody vine with showy flowers climbing high in trees and thickets in eastern U.S.
- Vine milkweed (<u>Ipomoea alba</u>). Uncommon vines clambering over vegetation in open areas and prostrate in eastern U.S.
- Virginia creeper (<u>Parthenocissus quinquefolia</u>). Frequent vine climbing high in trees and thickets in eastern U.S.
- Wild bamboo (Smilax auriculata). Uncommon vine climbing in thickets and trees.
- Wild morning glory (<u>Ipomoea trilobata</u>). Common vine in open areas, prostrate or clambering over vegetation, in eastern U.S.
- Woodbine (<u>Parthenocissus inserta</u>). Uncommon vine climbing in thickets and trees in eastern U.S.

## SHRUBS AND SMALL TREES

- Alder (Alnus serrulata). Common shrub along streams and lakes in eastern  $U_{\bullet}$  S.
- Alder (Alnus sinuata). Common shrub along streams and rivers in Pacific northwest.
- American beautyberry (Callicarpa americana). Abundant shrub in open woods and thickets in eastern U. S.
- American elderberry (Sambucus canadensis). Common shrub in waste areas, thickets, and fence rows in eastern U. S.
- American mistletoe (Phoradendron flavescens). Abundant parasitic woody plant in oaks and hardwoods in southeastern U. S.
- American mountain-ash (Sorbus americana). Common in low woods and moist areas in northeastern U. S.

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- American plum (<u>Prunus americana</u>). Common tree along streams and rivers in moist soil in eastern U.S.
- Arbutus (Arbutus menziesii). Common leathery shrub in dry soil on west coast.
- Athel (Tamarisk africana). Uncommon tropical, introduced tree in dry areas of Texas.
- Autumn olive (Elegnus umbellata). Common cultivated shrub in most dry soils in eastern U.S.
- Baldhip rose (Rosa gymnocarpa). Uncommon shrub in dry soils in Pacific northwest.
- Barberry (Berberis thunbergii). Common cultivated shrub in most soils throughout entire U.S.
- Bayberry (Myrica pensylvanica). Frequent aromatic shrub in coastal sandy soils in eastern U.S.
- Beach plum (Prunus maritima). Uncommon tree in sandy coastal soils on east coast.
- Bearberry honeysuckle (Lonicera involucrata). Uncommon shrub in most interior soils in northern U.S.
- Blackberry (Rubus argutus). Abundant thorny shrub in most soils in eastern U.S.
- Blackberry (Rubus bifrons). Frequent thorny shrub in dry soils in eastern U.S.
- Black mangrove (Avicennia germinans). Frequent tree on saltwater shores and islands in south Florida. Occasional in Texas.
- Black raspberry (<u>Rubus leucodermis</u>). Common spiny shrub in moist soils in Pacific northwest.
- Black raspberry (<u>Rubus occidentalis</u>). Common spiny shrub in moist soils in eastern U.S.
- Black willow (Salix nigra). Abundant tree in wet freshwater areas throughout U.S.
- Brazilian peppertree (Schinus terebinthefolius). Frequent introduced tree on sandy soils in south Florida. Cultivated as ornamental.
- Buffaloberry (Shepheria canadensis). Common scurfy shrub on stream banks in northern U.S.
- Buttonbush (Cephalanthus occidentalis). Abundant shrub in swamps and marshes in interior southeastern U.S.
- Buttonwood (<u>Conocarpus erecta</u>). Common tree in sandy soils in south Florida.

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- Cabbage palm (Sabal palmetto). Common tree in sandy soils in Florida, Texas, and along gulf coast. Cultivated as ornamental.
- Carolina rose (Rosa carolina). Frequent spiny shrub in waste areas and marshes in southeastern U.S.
- Cascara buckthorn (Rhamnus purshiana). Common shrub in dry soils in Pacific northwest.
- Catalpha (Catalpha speciosa). Common introduced tree in most soils in southeastern U.S. Cultivated as ornamental.
- Century plant (Agave americana). Uncommon succulant plant in dry sandy soils in Florida and Texas.
- Cherry laurel (Prunus caroliniana). Common cultivated shrub in most soils in southeastern U.S.
- Chinaberry tree (Melia azedarach). Uncommon introduced tree in dry soils in southeastern U.S. Cultivated as ornamental.
- Chinese tallow tree (Sapium sebiferum). Uncommon introduced cultivated tree in most soils in southeastern U.S.
- Chinese tamarisk (<u>Tamarisk chinesis</u>). Uncommon introduced tree in dry sandy soils in deep south. Cultivated as ornamental.
- Citrus (Citrus sinensis). Common cultivated tree in most soils in Florida, Texas, deep south, and southwestern U.S.
- Coast red elderberry (<u>Sambucus racemosa</u>). Common shrub in moist open areas in Pacific northwest.
- Common chokecherry (<u>Prunus virginiana</u>). Common shrub in most soils in eastern U.S.
- Common juniper (<u>Juniperus communis</u>). Frequent shrub in upland soils in southern U.S. Cultivated as ornamental.
- Common snowberry (Symphoricarpos albus). Uncommon shrub in woods and thickets in southeastern U.S.
- Common St. John's wort (<u>Hypericum perforatum</u>). Common shrub in upland soils in eastern U.S.
- Crabapple (Malus angustifolia). Uncommon tree in most upland soils in eastern U.S.
- Crack willow (Salix fragiles). Uncommon introduced tree in wet soils in central and eastern U.S.
- Creeping juniper (<u>Juniperus horizontalis</u>). Common shrub in upland soils in northern U.S. Cultivated as ornamental.
- Dahoon (<u>Ilex cassine</u>). Common shrub in sandy coastal soils on gulf and east coasts. Tolerates slight salinity.
- Desert olive (Forestiera angustifolia). Uncommon shrub in dry sandy soils in southwest U.S. and Texas.

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- Devil's walking stick (<u>Aralia spinosa</u>). Common small tree in dry soils in woods or open areas in eastern U.S.
- Dwarf St. John's work (<u>Hypericum mutilum</u>). Common shrub in fields and moist areas in eastern U.S.
- Eastern hophornbeam (Ostrya virginiana). Frequent tree in moist to dry soils in woods and thickets in eastern U.S.
- Elderberry (Sambucus callicarpa). Common shrub in waste places in eastern U.S.
- European mountain-ash (Sorbus aucuparia). Uncommon introduced tree in dry soils in eastern U.S. Cultivated as ornamental.
- Evergreen blackberry (Rubus laciniatus). Common spiny shrub in moist soils in western U.S.
- False willow (Baccharis angustifolia). Uncommon shrub in sandy soils in eastern U.S., especially on coasts.
- Fig (Ficus carica). Common cultivated tree in upland soils in southeastern U.S.
- Florida elderberry (Sambucus simpsonii). Common shrub in moist sandy soils in Florida.
- Florida privet (Forestiera segregata). Common shrub in moist soils in Florida.
- Flowering dogwood (Cornus florida). Frequent small tree with showy flowers in eastern U.S. Cultivated throughout U.S. as ornamental.
- Gallberry (<u>Ilex glabra</u>). Uncommon shrub in sandy coastal soils along east and gulf coasts.
- Gray dogwood ( $\underbrace{\text{Cornus}}_{\text{U.S.}}$  racemosa). Common shrub in moist soils in northern
- Ground blueberry (Vaccinium myrsinitis). Common leathery shrub in low woods and thickets in eastern U.S.
- Groundsel tree (<u>Baccharis halimifolia</u>). Frequent shrub in salt marshes on east and gulf coasts.
- Guava (Psidium guajava). Uncommon shrub in sandy soils in Florida.
- Halberd-leaved willow (Salix hastata). Uncommon small tree in moist soils in northcentral U.S. Cultivated as ornamental.
- Hawthorn (Crataegus fabellata). Uncommon thorny small tree on stream banks in northcentral U.S.
- Highbush blueberry (Vaccinium corymbosum). Common shrub in swamps, thickets, and woods in southeastern U.S.
- Highbush cranberry (Viburnum edule). Common shrub in low areas in Pacific northwest.

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- Himalayan blackberry (<u>Rubus discolor</u>). Uncommon introduced shrub in moist areas in Pacific northwest.
- Honey mesquite (<u>Prosopis glandulosa</u>). Common small tree in dry sandy soils in southwestern U.S.
- Honeysuckle (Lonicera x bella). Uncommon cultivated shrub in moist soils.
- Hooker willow (<u>Salix hookeriana</u>). Uncommon shrub in moist areas in Pacific northwest.
- Indian almond (<u>Terminalia catappa</u>). Uncommon introduced small tree in moist soils in Florida.
- Juneberry (Amelanchier laevis). Common small tree in dry woods in eastern U.S. to Missouri.
- Lantana (Lantana involucrata). Uncommon tropical shrub in moist soils in Texas.
- Lantana (Lantana ovatifolia). Uncommon tropical shrub in moist soils in Texas.
- Macartney rose (Rosa bracteata). Uncommon introduced spiny shrub in woods and waste areas in southeastern U.S.
- Marginated century plant (Agave americana var. marginata). Uncommon succulant plant in dry sandy soils in Florida, Texas, and southwestern U.S.
- Marsh elder (<u>Iva frutescens</u>). Frequent shrub in salt marshes and on sandy shores on east and gulf coasts.
- Marsh hibiscus (<u>Hibiscus moscheutos</u>). Common shrub with showy flowers in wet and moist areas in southeastern U.S.
- Meadow rose (Rosa blanda). Common thornless shrub in moist areas in northern U.S.
- Multiflora rose (Rosa multiflora). Frequent spiny shrub in moist areas in eastern U.S. Cultivated as ornamental over entire U.S.
- Naked wood (Myricanthes fragrans). Uncommon tropical shrub in moist sandy soils in Florida and Texas.
- Narrowleaf marsh elder (<u>Iva angustifolia</u>). Uncommon shrub in salt marshes and on sea shores in eastern U.S.
- Nine-bark (Physocarpus spulifolius). Common shrub in moist soils in northern U.S.
- Nits and lice (<u>Hypericum drummondii</u>). Uncommon bushy shrub in dry soil in eastern U.S. to Kansas.
- Northern dewberry (Rubus flagellaris). Common spiny shrub in waste places in northern  $\overline{\text{U.S.}}$
- Oleander (Nerium oleander). Common tropical shrub in dry sandy soils in southern U.S., especially southwest. Tolerates salinity and cultivated as ornamental.

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- Orange grass (<u>Hypericum gentianoides</u>). Uncommon erect shrub in sandy soil in eastern U.S. to Missouri.
- Pacific dogwood (Cornus nuttallii). Common shrub in moist areas in Pacific northwest.
- Pacific nine-bark (Physocarpus capitatus). Common shrub in moist soils in Pacific northwest.
- Pacific willow (Salix lasiandra). Common gray-green small trees in moist soil in western U.S.
- Painted leaf poinsettia (Poinsettia heterophylla). Uncommon tropical shrub with showy flowers in Florida. Cultivated as ornamental.
- Peachleaf willow (Salix amygdaloides). Frequent small tree in moist soils in north central U.S.
- Possumhaw (<u>Ilex decidua</u>). Frequent shrub with showy berries in moist soils in eastern U.S. to Kansas.
- Prickly rose (Rosa acicularis). Common very spiny shrub in moist areas in northern U.S.
- Raspberry (Rubus idaeus). Common, scarcely spined shrub in waste areas and thickets in eastern U.S.
- Red alder (Alnus rubra). Common shrub along streams and rivers in Pacific.
- Red currant (<u>Ribes sanguineum</u>). Uncommon shrub in moist soils in northern U.S.
- Red elderberry (Sambucus pubens). Uncommon shrub in rocky and woody areas in northern U.S.
- Red mangrove (Rhizophora mangle). Common tropical small tree on salt water shores in Florida.
- Red osier dogwood (<u>Cornus stolonifera</u>). Abundant shrub with red stems in moist soils in northern U.S.
- Roosevelt groundsel (<u>Baccharis neglecta</u>). Common bushy shrub in moist sandy soils and along streams in deep south.
- Rough-leaved dogwood (Cornus drummondii). Common shrub in moist soils in central U.S.
- Round-leaved dogwood (<u>Cornus rugosa</u>). Uncommon shrub in shady rocky areas in northern U.S.
- Russian olive (Eleagnus angustifolia). Common thorny shrub in dry sandy soils in eastern U.S. Cultivated for wildlife.
- Salal (Gardtheria shallon). Common shrub in moist woods in Pacific northwest. Cultivated for florist greenery.
- Salmonberry (Rubus spectabilis). Common shrub in moist soils in Pacific northwest.

- Saltcedar (<u>Tamarisk parviflora</u>). Common small tree of salt marshes and sandy shores on southeastern U.S. coasts.
- Sandbar willow (Salix interior). Frequent small tree in moist area in northern and eastern U.S.
- Sand blackberry (Rubus cuneifolius). Common spiny shrub in sandy soils in southeastern U.S.
- Sand cherry (<u>Prunus pumila</u>). Uncommon spreading shrub on sandy or gravelly shores in northern U.S.
- Sand pine (Pinus clousa). Common evergreen shrub on sandy shores and islands on gulf coast.
- Sawtooth oark (Quercus acutissima). Uncommon small tree in sandy soils in southeastern U.S.
- Schlecht blackberry (Rubus ursinus).
- Scotch broom (Cytisus scoparius). Frequent bushy shrub on hills and dry areas in Pacific northwest. Cultivated as ornamental.
- Scouler willow (Salix scouleriana). Common small tree in moist soils in western U.S.
- Seacoast marsh elder (<u>Iva imbricata</u>). Uncommon shrub in salt marhses on east and gulf coasts.
- Serviceberry (Amelanchier canadensis). Common small tree of dry woods in southeastern U.S.
- Shining sumac ( $\underline{\text{Rhus}}$  copallina). Common small shrub in waste areas in eastern U.S. Abundant in deep south.
- Shore pine (Pinus virginiana). Common small evergreen tree in poor soils and beaches in eastcentral U.S.
- Shrub orache (Atriplex polycarpa). Uncommon shrub in sandy beach soils in eastern U.S.
- Shrub poison ivy (Rhus radicans). Abundant shrub in marshes, swamps, and woods in southeastern U.S.
- Shrub verbena (Lantana camara). Common shrub with showy flowers in deep south and Florida. Cultivated as ornamental.
- Sitka mountain-ash (Sorbus sitchensis). Common small tree in moist areas in Pacific northwest.
- Silky dogwood (Cornus obliqua). Common shrub in moist soils in northern and eastern U.S.
- Smooth sumac (Rhus glabra). Common small tree in waste areas in eastern and central U.S.
- Snowberry (Chiococca alba). Uncommon erect shrub in moist soils and on river banks in northern U.S. and California.

- Southern dewberry (Rubus trivalis). Abundant spiny shrub in waste areas in southeastern U.S.
- Spanish dagger (Yucca treculeana). Uncommon stiff spined plant in dry sandy soils in southern U.S.
- Spice bush (<u>Lindera benzoin</u>). Uncommon smooth shrub in moist woods, thickets, and along streams in northeastern U.S.
- Spiraea (Spiraea tomentosa). Uncommon erect shrub in swamps and low ground in northeastern U.S.
- Staghorn sumac (Rhus typhina). Common small tree in dry waste areas in eastern and central U.S. Abundant in northcentral U.S.
- St. John's wort (<u>Hypericum hypericoides</u>). Uncommon shrub in moist soil in eastern U.S.
- Swamp dogwood (Cornus amomum). Frequent shrub in wet and moist areas in southeastern U.S.
- Swamp gooseberry (Ribes lacustre). Common spiny shrub in swamps and wet woods over entire U.S.
- Swamp privet (Forestiera acuminata). Common shrub in wet and moist areas in southeastern U.S.
- Swamp rose (Rosa palustris). Common spiny shrub in moist areas in southeastern U.S.
- Tamarisk (<u>Tamarisk</u> <u>gallica</u>). Uncommon small tree in dry sandy soils in southeastern U.S.
- Tartarian honeysuckle (Lonicera tartarica). Uncommon shrub in waste areas in northeastern U.S. Cultivated as ornamental.
- Texas huisache (Acacia smallii). Common small tree in sandy soils in Texas.
- Texas lantana (Lantana horrida). Uncommon tropical shrub in moist soils in Texas.
- Thorny eleagnus (Eleagnus pungens). Common thorny evergreen shrub in many soils in eastern U.S. Cultivated as ornamental and for rights-of-ways over entire U.S.
- Toothache tree (Zanthoxylum clava-herculis). Common thorny shrub in waste areas and woods in southeastern U.S.
- Turkey oak (Quercus laevis). Common small tree in sandy coastal soils along east coast.
- Water birch (<u>Betula occidentalis</u>). Common small tree in wet areas in western U.S. (not on coasts).
- Wax myrtle (Myrica cerifera). Abundant evergreen aromatic shrub in sandy soils on east and gulf coasts.

- White mangrove (Languncularia racemosa). Common tropical shrub on salt water shores in Florida.
- White mulberry (Morus alba). Common introduced small tree in moist soils in eastern U.S. Cultivated as ornamental.
- White willow (Salix alba). Common shrub in moist soils in northern U.S. and California.
- Wild black currant (Ribes americanum). Common erect unarmed shrub in woods in northern U.S. and southwest.
- Wild indigo (Baptisia leucophaea). Uncommon bushy shrub on dry sandy shores in Texas.
- Wild rose (Rosa rugosa). Uncommon spiny shrub in moist soils in northern U.S.
- Wild Virginia rose (Rosa viriginiana). Uncommon spiny shrub in moist soils in southeastern U.S.
- Willow (Salix rigida). Uncommon shrub in moist soils in northern U.S.
- Yaupon (Ilex vomitoria). Frequent evergreen shrub in moist sandy soils on east and gulf coasts. Cultivated as ornamental.
- Yellow sophora (Sophora tomentosa). Uncommon leguminous shrub on plains and prairies in southwest U.S. and Texas.
- Yucca (Yucca pendula). Uncommon stiff prickly shrub in dry soils in southern U.S.

## LARGE TREES

- American beech (<u>Fagus grandifolia</u>). Common deciduous tree in wet areas, hardwood bottomlands, and along streams in eastern U.S. to Missouri.
- American elm (<u>Ulmus americana</u>). Common deciduous tree in moist soils in open and in woods in eastern U.S. to Kansas.
- American sycamore (Platanus occidentalis). Common deciduous tree in moist areas and stream banks in eastern and central U.S. to Colorado.
- Australian pine (<u>Casuarina equisetifolia</u>). Abundant introduced evergreen tree in sandy soils in Florida and California.
- Austrian pine (Pinus nigra). Uncommon introduced evergreen tree in moist soils in northeastern U.S.
- Bald cypress (<u>Taxodium</u> <u>distichum</u>). Common deciduous tree in standing water and swamps in southeastern U.S.
- Balsam poplar (<u>Populus balsamifera</u>). Uncommon deciduous tree in moist soils in Great Lakes region and western mountains.
- Basswood ( $\underline{\text{Tilia}}$   $\underline{\text{americana}}$ ). Common deciduous tree in moist soils in eastern U.S. Very large leaves.

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- Bigtooth aspen (Populus grandidentata). Common deciduous tree in moist soils in northeastern U.S.
- Bitternut hickory (Carya cordiformis). Common deciduous tree in moist soils and hardwood bottomlands in eastern U.S.
- Black cherry (<u>Prunus serotina</u>). Common deciduous tree in moist soils in eastern U.S. to Kansas. Cultivated as ornamental.
- Black cottonwood (<u>Populus trichocarpa</u>). Common deciduous tree in wet areas and moist soils in Pacific northwest.
- Black locust (Rovinia pseudo-acacia). Frequent deciduous leguminous tree in dry soils in eastern U.S.
- Black oak (Quercus velutina). Common deciduous tree in dry soils in eastern U.S. to Kansas.
- Black walnut (<u>Juglans nigra</u>). Common deciduous tree in most soils in eastern U.S. to Kansas. Very valuable furniture wood.
- Boxelder (Acer negundo). Frequent deciduous tree in moist soils, dry poor soils, and in waste areas throughout entire U.S. except Texas and far west.
- Bur oak (Quercus macrocarpa). Common deciduous trees in moist soils and bottomlands in central U.S., primarily northcentral.
- Date palm (Phoenix dactylifera). Frequent tropical evergreen tree in sandy soils in Florida, Texas, deep south coasts, and California.
- Desert hackberry (Celtis pallida). Uncommon deciduous tree in moist sandy soils in Texas and southwest U.S.
- Douglas fir (Pseudotsuga menziesii). Common evergreen tree in mountain areas in western U.S. Valuable lumber tree.
- Eastern cottonwood (<u>Populus deltoides</u>). Frequent deciduous tree along streams and in bottomlands in eastern U.S. to Kansas. Valuable lumber tree.
- Eastern red cedar (Juniperus virginiana). Frequent evergreen tree in moist to dry soils, especially alkaline soils, in eastern U.S.
- Green ash (<u>Fraxinus pennsylvanica</u>). Common deciduous tree in wet bottomlands in eastern U.S.
- Hackberry (Celtis occidentalis). Common deciduous tree in moist soils in eastern U.S., primarily northeast.
- Honeylocust (Gleditsia tricanthos). Common deciduous thorny tree in moist bottomlands in southeastern U.S.
- Laurel oak (Quercus laurifolia). Uncommon semi-evergreen tree in sandy soils in deep south and Florida near coasts.
- Lindheimer hackberry (Celtis lindheimeri). Common deciduous tree in moist soils in southeastern U.S.

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- Live oak (Quercus virginiana). Common evergreen tree in coastal sandy soils in southeastern U.S.
- Loblolly pine (Pinus taeda). Abundant evergreen tree in moist soils in southeastern U.S. Valuable lumber tree.
- Lodgepole pine (<u>Pinus contorta</u>). Common evergreen tree in moist soils in western U.S. Valuable lumber tree.
- Longleaf pine (Pinus palustris). Abundant evergreen tree in moist sandy soils in southeastern U.S., especially on coastal plain.
- Mexican windmill palm (Washingtonia robusta). Common tropical evergreen tree in sandy soils in Texas. Cultivated as ornamental.
- Northern white cedar (<u>Thuja occidentalis</u>). Common evergreen tree in alkaline, moist, and boggy soils in northeastern U.S.
- Nuttall oak (Quercus <u>nuttallii</u>). Uncommon deciduous tree in moist bottomlands in deep south.
- Oregon ash (Fraxinus latifolia). Uncommon deciduous tree in moist soils in Pacific northwest.
- Ornamental data palm (<u>Phoenix canariensis</u>). Frequent tropical evergreen tree in sandy soils in Florida, Texas, and gulf coast. Cultivated as ornamental.
- Pin oak (Quercus palustris). Common deciduous tree in moist bottomlands in northeastern U.S. to Missouri.
- Persimmon (<u>Diopyros virginiana</u>). Common deciduous tree in waste areas and moist soils in southeastern U.S.
- Port Orford cedar (Chamaecyparis lawsoniana). Uncommon evergreen tree in moist soils in Pacific northwest. Valuable lumber tree. Cultivated as ornamental.
- Quaking aspen (<u>Populus tremuloides</u>). Frequent deciduous tree in mountain areas in western U.S. Cultivated as ornamental.
- Reclinata palm (<u>Phoenix reclinata</u>). Common tropical evergreen tree in sandy soils in Florida.
- Redbay (Persea borbonia). Uncommon evergreen aromatic tree in swamps and near streams in deep south and Florida.
- Red elm (<u>Ulmus rubra</u>). Common deciduous tree in dry soils in eastern U.S.
- Red maple (Acer rubrum). Frequent deciduous tree in moist to swampy soils in eastern U.S. Cultivated as ornamental.
- Red mulberry (Morus rubra).
- Red oak (Quercus rubra). Common deciduous tree in dry soils in eastern U.S. except deep south and Florida.

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- Red pine (Pinus resinosa). Common evergreen tree in moist soils in northeastern U.S. Valuable lumber tree.
- River birch (Betula nigra). Common deciduous tree in streams and swamps in eastern U.E.
- Saltcedar (Tamarisk ramosissima). Common evergreen tree in sandy soils on gulf and east coasts.
- Sassafras (Sassafras albidum). Common deciduous tree in moist woods and thickets in eastern U.S. Frequent in deep south.
- Shumard oak (Quercus shumardii). Uncommon deciduous tree in moist bottomland soils in southeastern U.S. except south Florida.
- Silver maple (Acer saccharinum). Common deciduous tree in bottomlands in eastern U.S. except coasts. Cultivated as ornamental.
- Sitka spruce (Picea sitchensis). Uncommon evergreen tree in low moist areas in Pacific northwest.
- Slash pine (Pinus elliottii). Common evergreen tree in moist soils in southeastern U.S. Valuable lumber tree.
- Southern red cedar (Juniperus silicicola). Uncommon evergreen tree in moist to dry soils in Florida.
- Sugarberry (Celtis <u>laevigata</u>). Common deciduous tree in moist soils in southeastern U.S.
- Sugar maple (Acer saccharum). Common deciduous tree in moist soils in northeastern U.S. Cultivated as ornamental. Valuable furniture wood. Use for maple syrup.
- Swamp white oak (Quercus bicolor). Common deciduous tree in swampy moist soils in northeastern U.S.
- Sweetgum (Liquidambar styraciflua). Frequent deciduous tree in moist to dry soils in southeastern U.S.
- Tree of heaven (Ailanthus altissima). Uncommon deciduous introduced tree in moist soils over most of U.S. Cultivated as ornamental.
- Tulip poplar (Liriodendron tulipifera). Common deciduous tree in moist to wet soils in southeastern U.S.
- Water oak (Quercus nigra). Frequent semi-evergreen tree in moist bottomlands in southeastern U.S.
- Western hemlock (<u>Tsuga</u> <u>heterophylla</u>). Common evergreen tree in moist soils in Pacific northwest. Cultivated as ornamental. Valuable lumber tree.
- White ash (<u>Fraxinus americana</u>). Common deciduous tree in moist to dry soils in eastern U.S. except south Florida.
- Willow oak (Quercus phellos). Common deciduous tree in moist bottomlands in southeastern U.S. except south Florida.

Selected Upland Plant Species for Habitat Development on Predged Material Sites\*

Remarks	Tolerates saline condi- tions, beach and dune areas, excellent for sandy beach and dune areas	Prefers sandy areas, good soil stabilizer	Cultivated for pasture, good cover, wide range of soils	Extensively cultivated for cover and grain, requires good soil bed	Prefers moist soils, cultivated for waterfowl food	Prefers sandy soils	Prefers moist sandy soil	Important forage grass, prefers well-drained soils	Important forage grass, prefers well-drained soils	Pest plant in pastures and crops, grows under most soil conditions	Prefers wet soils, excellent waterfowl food, no soil preparation necessary in many cases	Prefers moist soils, good seed producer	Prefers moist soils	Vigorous new hybrid Bermuda, pasture use	
Growth Habits	Perennial cool season grass with stiff stems, full sun	Strong, erect, fast growing, full sun	Summer perennial, creeping base with upright stems, full sum	Annual, winter cover crop grass, full sun	Annual grass, arching heads, full sun	Perennial, few flowered,	Perennial, hardy, fast growing, full sun	Perennial, robust, tufted, dense sod, full sun	Perennial, creeping rhi- zomes, erect stems, dense sod, full sun	Perennial, dense culm, upright stems, full sun	Summer annual, erect stems, good seed pro- ducer, full sun	Stout summer annual, fast growing, spreading, full sun	Erect, dense, fast growing, full sun	Perennial, fast growing, sterile, full sun	
Mature Height	To 1.5 m	То 1.5 ш	To 0.5 m	То 1.3 в	To 2 m	То 1.3 ш	To 2 m	To 2 m	To 2 m	То 1 ш	То 0.6 ш	70 2 m	To 2 H	То 0.5 m	
Rangett	MA, NE, GL	NE, RNW	SE, MA, FL, MS	Entire U. S.	Entire U. S. except FL	MA, SE, FL, MS	MA, SE, FL, MS, MRV, SP, MP	Entire U. S. except PNW, CA	Entire U. S. except SE, FL, MS, SP	Entire east- ern U. S. and CA	SE, MA, MS, FL	MA, SE, FL, MS	NE, MA, SE, FL, MS, SP, SW, CA	SE, MS, SP, FL	
Planting Periods	Feb-May	March-June	March⊸June	Oct-Nov	May-Sept	March-June	April-June	April-June	April-June	May-Sept	March-July	March-June	April-June	March-June	(Continued)
Temporary Storage Requirements	In wet sand beds or in pots of sand	In wet sand beds or in pots of sand	Dry, cool area	Dry, cool area	Dry, cool area	In wet sand beds or in pots of sand	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cold room	Dry, cool area	In soil beds	
Collection Periods1	Oct-March	Sept-March	July-Sept	May⊸July	June-Sept	Sept-March	July-Sept	July-Sept	July-Sept	Sept-Oct	Sept-Nov	July-Oct	Aug-Oct	Year-round	
Best Propagule Type	Transplants	Transplants	Seeds	Seeds	Seeds	Transplants	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds.	Seeds	Transplants, root stock	
Species** (Alphabetized by Common Name)	Grasses American beachgrass (Ammophila breviligulata)	American dunegrass (Elymus mollis)1,3	Bahia grass ( <u>Paspalum notatum</u> ) <sup>1,3</sup>	Barley (Hordeum vulgare) <sup>1,2,3</sup>	Barnyard grass (Echinochloa crusgalli) 1,3	Beach panic grass 1 (Panicum ararum)	Beaked panic grass <sub>1</sub> ( <u>Pagicum anceps</u> )	Big bluestem ( <u>Andropogon gerardi</u> ) <sup>1,3</sup>	Bromegrass $(\frac{\text{Bromus}}{\text{Bromus}})^1,3$	Broomsedge (Andropogon virginicus)	Browntop millet (Panicum ramosum) <sup>3</sup>	Buli Paspalum ( <u>Paspalum boscianum</u> )	Bushy beardgrass ( <u>Andropogon glomeratus</u> )	Calley Bermuda grass (Cynodon dactylon hybrid)	

<sup>\*</sup> Sources of these data are from unpublished data by the author and Brown (1970), Brockman (1968), Correil and Johnston (1970), CZMD (1978), Franklin and Dyrness (1973), Halls (1977), Harrar and Harrar (1962), Harman and Kester (1979), Hitchcock (1970), Hitchcock

Table 2 (Continued)

Remarks		Planted extensively in southern pastures for grazing and hay, toler- ates salt spray	Pasture crop, lawns, pest in cultivated areas, tolerates wide range of conditions	Pest plant in many areas, not recommended for any use other than soil stabilization	Cultivated extensively for grain, silage, and human consumption	Cultivated pasture grass	Tolerates acid soils, seeds have strong dormancy	Tolerates saline condi- tions, excellent for sandy beach and dune areas	Tolerates wide range of soil conditions includ- ing wet areas, consi- dered crop pest	Cultivated extensively for grain and silage, prefers moist soils	Pest plant in cultivated areas, grows in most soil conditions	Occurs in many soils, pest in crops, not palatable to browsers	Cultivated for winter grazing, quick winter cover, and lawns	Occurs in all soils, grown for waterfowl and cattle feed, is salt tolerant to some extent	Planted for pastures and hay, pest in cultivated areas	Good seed producer, pre- fers wet to moist soils
Growth Habits		Perennial, fast growing, sterile, full sun	Perennial, fast growing, abundant seeds, full sun	Perennial, fast growing, persistent, full sun	Summer annual, upright, heavy seed producer, full sun	Dense perennial, full sun	Warm season, full sun, dense clumps	Ferennial, cool season grass, rigid stems, full sun	Coarse, summer annual, fast growing, good seed producer, full sun	Summer annual, upright, fast growth, full sun	Small culmed perennial, heavy seed producer, full sun	Vigorous summer annual, clumped, full sun	Perennial in south, an- nual in north, hardy, forms dense root sys- tem, full sun	Tall heavy annual, abundant seeds, full sun	Hardy, fast growing, erect, strong seed pro- ducer, full sun	Perennial, prostrate to erect, full sun
Mature Range Height		SE, MA, FL, To 0.5 m SP, MS	Entire U. S. To 0.2 m except MM, PNW, NP, NE	GL, NE, MA, То 4 m SE, FL, мs, зР	Entire U. S. To 3 m	SE, MS, FL, To 1.5 m MA, SF, SW	NE, MA, SE, To 1.6 m MS, MP, NP, MRV	PNW, CA TO 1.5 m	Entire U. S. To l m NP, PNW	Entire U. S. To 2 m except MW, FL, SP	Entire U. S. To 0.5 m except NP, FNW	Entire U. S. To 1 m	U. S. and SP, NP, PNW, CA	Entire U. S. To 1.5 m except FL	Entire U. S. To 1.5 m except NP, MM, PNW	Entire U. S. To O.4 m except NP, NW
Planting Periods		March-June SE	April-June En	Feb-June GL	March-June En	Year-round SE (MS, FL) April-May (north)	Oct-Nov; NE March-Apr	Feb-May PN	Feb-June	April-July En	April-July Ent	April-July En	Oct-Nov Eas	April-Sept Ent	April-Sept Ent	May-Sept Ent
Temporary Storage Requirements		In soil beds	Dry, cool area	In sand beds or pots of sand	Dry, cool area	Dry, cool area	Dry, cool area	Hold in wet sand beds or in sand pots	Dry, cooi area	Dry, cool area	Dry, cool area	Ory, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area
Collection Periods		Year-round	June-Sept	Sept-March	July-Oct	June-Sept	Aug-Oct	Oct-March	Sept-Nov	June-Sept	June-Sept	July-Oct.	May-July	June-Sept	July-Oct	June-Sept
Best Propagule		Transplants, root stock	Seeds	Root stock, rhizomes	Seeds	Seeds	Seeds	Transplants	Seeds	Seeds	Seeds	Seeds	Seeds	3. Seeds	Seeds	Seeds
Species (Alphabetized by Common Name)	Grasses (Continued)	Coastal Bermuda grass ( <u>Cynodon dactylon</u> hybrid) <sup>3</sup>	Common Bermuda grass1,3 (Cynodon dactylon),3	Common reed (Phrugmites australis)	Corn ( <u>2ca mays</u> ) <sup>1,2,3</sup>	Dallis grass (Paspellum (Hlatum) <sup>1,3</sup>	Deertongue ( <u>Muhlenbergia rigens</u> )	European beachgrass (Ammophila arenaria) 1,3	Pail paric grass (Panicum dichotomiflorum)	Foxtail miller ( <u>Setaria italica</u> ) <sup>3</sup>	Goose grass (Elemental)	Getaria viridis)	Jalian ryegnass   {Jolium maitifiorum}	capanese millet (E <u>chinochioa crusgalli</u> hybrid) <sup>3</sup>	Johnson grass (Sorghum halepense)),3	Junkle rice ( <u>Fehinockios colonum)</u>

Table 2 (Continued)

Table 2 (Continued)

Remarks	Prefers mo areas, o m marshes dunes	mer Occurs in flooded saline s best areas to dry sand dunes, occurs frequently, and is successfully planted on dredged material	rdy, Prefers sandy soils, grows 1 sun on prairie areas	ense Prefers sandy, coastal areas, excellent dune stabilizer, tolerates salt spray	peren- Prefers coastal sand dunes	st Tolerates flooding and salt spray, occurs on dredged material islands in dense stands	ren. Prefers sandy beach soils, s, tolerates salt sprays, occurs on dredged mate- rial islands	-5 -5	ing, Occurs in many soil types, a pest in cultivated fields and gardens	hal, Cultivated extensively as grain and silage crop, tolerates wide range of soils	en- Cultivated for hay and silage, tolerates wide range of soils	ist Frefers moist soils, grows ill at water's edge, toler- ant of salt spray	n Cultivated for pastures is in	Fast growing, considered the crop weed, grows well on sand dunes	st Cultivated extensively
Growth Habits	Dense perennial, hardy, many rhi zomes, good seed producer, full sun	Densely rooted, summer perennial, spreads best from fillers	Erect perennial, hardy, slow growing, full sun	Robust perennial, dense roots, full sun	Creeping rhizomous peren- nial with upright culms, full sun	Dense perennial, fast growing, full sun	Upright, coarse, peren- nial, fast growing, full sun	Annual, fast seed producer, full sun or shade	Creeping, fast growing, annual, full sun	Upright, summer annual, heavy seed producer, full sun	Wandering, upright, nual, hardy, fast growing, full sun	Summer perennial, fast growing, hardy, full sum	Cool weather grass in south, summer grass north, full sun	Summer annual with spreading stems, full sun	Summer perennial, fast growing, erect, full
Mature Height	l e	To 1 m	To 1 m	To 2 m	То 0.4 п	То 0.4 п	To 2 m	То 0.3 ш	То 0.3 ш	To 1.5 m	То 3 ш	E 2 0 []	To 1.5	То 2 ш	То 1 ш
Sange	Entire U. S. in saline areas ex- cept PNW, CA	NE, MA, SE, FL, MS, SP	Entire U. S.	MA, SE, FL,	PNW, CA	SE, FI, MS	NE, MA, FL, MS, SP	Entire U. S.	Entire U. S. except SW	Entire U. S.	Entire U. S. except NP, NE, PNW	Entire U. S. except NP, PNW, CA	Eastern U. S. ex- cept FL; MT, PNW	MA, SE, FL, ME, SP	Entire U. S. except SP,
Planting Periods	Mar-June	Feb-Jun	Apr-Jul	Mar-June	Mar-June	Sep-June	Mar-May	Mar-May	Apr-Sept	Apr-Sept	Apr-July	Apr-Sept	Oct-Nov (3) :Mar-May (N)	Mar-Aug	Apr-June
Temporary Storage Requirements	In sand beds or in pots of sand	In wet sand beds or in sand pots	Dry, cool area	In wet sand beds dry, cool area	In wet sand beds or pots of sand	In wet sand beds or in sand pots	Ery, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area
Collection Periods	Sep-May Jul-Sep	Year-round (south) Mar-Oct (north)	Sep-Oct	Sep-Mar (trans) Aug-Oct (seeds)	Sep-Mar	Sept-Mar	Sept-Oct	May-June	Jun-Sept	July-Oct	.uly-Oct	June-Sept	Apr-June (south) May-Aug (north)	Jul-Oct	Jul-Sept
Best Fropagule Type	Transplants, seeds	Transplants, seedlings	Seeds	Transplants, seeds	Transplants	Transplants	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds
Species (Alphabetized by Common Name)	Grasses (Continued) Saltgrass (Distichlis spicata),2,3	Saltmesdow cordgrass (Sparting patens)1.0,3	Sand dropseed (Sparobolus cryptandrus)	Sea cats (Unicla paniculata) <sup>1,2,3</sup>	Seashore bluegrass (Foa macantha) <sup>1</sup>	Seashore paspalum ( <u>Paspalum veginatum</u> )	Shoredune panic grass (Panicum amarulum) <sup>1</sup>	Sixweeks fescue (Festuca octoflora)	Smooth crabgrass (Digitaria ischaemum)	Sorghum vulgare) <sup>3</sup>	Sudan grass ( <u>Sorghum sudanese</u> )	Switchgrass ( <u>Panicum Virgatum</u> ) <sup>1,3</sup>	Tall fescue ( <u>Festuca arundinacea</u> )1,2,3	Texas millet ( <u>Panicum texanum</u> )	Timothy (Phleum pratense)1,2,3

Table 2 (Continued)

		Best Propagule		Temporary Storage			Mature	Owenth Hebite	
	Grasses (Continued)	Type	Sported Letton	some runhau	and the same of th	Great		20.40.000	and the same of th
	Torpedo grass (Panicum repens)	Transplants	Sep-Mar	In wet soil beds or pots of sand	Sept-June	FL, MS, SP	To 0.1 m	Stout perennials, many rhizomes, dense cover, full sun	Sea beaches, prefers sandy moist soils, tolerates salt spray
	Vascy grass (Paspalum urvillei)	Seeds	July-Sept.	Dry, cool area	Apr-June	FL, SE, MA, MS, SP, CA	To 2 m	Clumped, stout perennial, erect, hardy, full sun	Prefers moist soil, pasture grass, road- side cover
	Virginia dropseed ( <u>Sporobolus virginicus</u> )	Seeds	Jun-Sept	Dry, cool area	Apr-June	MA, FI., MS	То 0.4 ш	Perennial, branching rhizomes, erect culms, full sun	Occurs on sandy and muddy seashores, tolerates salt spray
	Walter's millet ( <u>Echinochloa walteri</u> ) <sup>1,3</sup>	Seeds	July-Sept	Dry, cool area	April-Sept	SP, MS, FL, SE, MA, NE, GL	To 3 B	Stiff stems, abundant seeds, annual, full sun	Occurs in all soils, cultivated for water- fowl food, prefers wet soils
	Wheat $\left(\frac{Triticum\ aestivum}{Triticum\ aestivum}\right)^3$	Seeds	May-July	Dry, cool area	Oct-Nov (winter) Mar-May (spring)	Entire U. S.	То 1 ш	Winter annual, good seed producer, hardy, full sun	Cultivated extensively, tolerates cold, good cover and food crop
	Wild rye (Elymus virginicus)	Seeds	May-July	Dry, cool area	Sept-June	Entire U. S. except CA	To 1.2 m	Perennial, tufted erect culms heavy seeds, full sun	Prefers moist soils, good seed producer, tolerates salt spray somewhat
	Wooly panic grass (Panicum lanuginosum)	Seeds	July-Sept	Dry, cool area	April-June	MA, SE, FL, MS	To 0.7 m	Perennial, clumped, spreading shade and sun	Prefers moist soils, grows in woods and open areas, occurs on sea coast
7	Yellow bristlegrass ( <u>Setaria lutescens</u> )	Seeds	July-Oct	Dry, cool area	April-July	Entire U. S. except SW, CA	То 1 ш	Summer annual, good seed producer, full sun	Occurs in many soil conditions, pest in crops, not palatable to browsers
71	Herbs Alfalfa (Medicago gativa) <sup>3</sup>	Seeds (inoculated)	July-Sept	Dry, cool area	Aug-Sept or Feb-April	Entire U. S.	То 0.5 ш	Perennial, much-branched legume, full sun	Requires good seedbed preparation, occurs on most soils, prefers rich, moist areas
	Alsike clover (Trifolium hybridum)1,3	Seeds (inoculated)	Mar-Apr (south) June-Sept (north)	Dry, cool area	Nov-Feb (south) Mar-Jun (north)	Entire U. S.	То 0.5 ш	Perennial, ascending branches full sun	Prefers moist, acidic soils, cultivated in areas other clays won't grow
	Arrow-leafed tearthumb (Polygonum sagittatum)	Transplants, seeds	July-Sept	Dry, cool area	Mar-June	Eastern and mid-U. S.	То 0.6 ш	Viney, annual, weak stemmed, spiney, full sun	Prefers moist soils
	Beach pea ( <u>Lathyrus laponicus</u> )	Seeds (inoculated)	May-Sept	Dry, cool area	Feb-June	Entire coastal U.S.	То 0.3 п	Perennial viney plant, hardy, full sun	Prefers sandy moist soils, occurs on coastal beaches, dunes, and islands
	Beach strawherry (Fragaria chiloensis)	Transplants	Sept-Mar	In sand beds or in pots of sand	Mar-June	PNW, SW	То 0.2 ш	Perennial plants with runners full sun to shade	Prefers moist sandy soils
	Big filaree ( <u>Er</u> odium <u>botrys</u> )	Seeds	Apr-July	Dry, cool area	Sept-Nov	CA	To 0.2 m	Winter annual, full sun	Fest plant, occurs in most well-drained soils
	Bird's foot trefoil $(\frac{1}{\text{Lotus}}, \frac{\text{corniculatus}}{\text{corniculatus}})^1$	Seeds (inoculated)	June-Sept	Dry, cool area	Mar-June	NE, MA	То 0.6 m	Long rooted perennial, full sum	Pest plant, occurs in most soils, common on coasts
	Bittersweet nightshade ( <u>Solanum dulcamara)</u> l	Seeds	May-Sept	Dry, cool area	April-May	NE, MA, NP	То 2.6 ш	Perennial, climbing stem, full sum to shade	Prefers moist soils and in woods, but grows in open areas
	Black medic (Medicago lupulina) <sup>1,3</sup>	Seeds (inoculated)	Mar-June (south) June-Aug (north)	Dry, cool area	Nov-Feb (south) Mar-Jun (north)	Entire U. S.	То 0.3 ш	Annual, shallow taproot, full sun	Prefers well-drained or dry soils, dormant in south in the summer

Table 2 (Continued)

Remarks	Pest in cultivated areas.	occurs in most soils	Pest plant, occurs in woods, fields, and waste areas	Prefers well-drained open areas	Prefers dry open areas	Occurs in most soils, in waste places	In fields and waste places	In dry, open areas	In dry scrub areas, sandy coastal beaches	Prefers dry, sandy soils, sea beaches, occurs com- monly on dredged mate- rial islands	Prefers wet to moist soils, prime wildlife food, extremely prolific	Prefers dry, well-drained soils	Pest plant in all agronomic situations	Pest plant, occurs in most soils, prefers well- drained soils	Pest plant, occurs in most soils, occurs on dredged material islands	Pest plant, occurs in open well-drained areas	Prefers dry sandy areas	Pest plant, occurs in most soils, tolerates salt spray, occurs on dredged material islands	Occurs in moist soils in interior areas
Growth Habits	Erect. annual. hairv.	hardy, full sun	Perennial, rootstock stout, thick, erect, hardy, full sun or shade	Annual, many branched stem, full sun	Perennial, stout root- stock, erect, full sun	Perennial, rootstock, short, thick, erect, full sun	Ferennial, pubescent, short rootstock, full sun	Perennial, many branched, shrubby, full sun	:	Biennial, many branched, many flowered, full sun	Perennial sedge, robust, fast growing, numerous edible tubers full sun	Perennial, long roots, slender stems, full sun	Weak, tufted annual, much branched, full sun	Winter annual, taproots, many branched, full sun	Annual, erect, bushy common, shade to full sun	Erect, stout, biennial, full sun	Annual, prostrate, free branching, deep roots, full sun	Annual, shallow roots, robust, common, full sun	Perennial, upright, slender stems, full sun
Mature Height	To la		To 1 m	To l m	To 0.5 m	To 0.2 m	То 0.3 ш	To 0.6 m	1	То 1 ш	To 0.6 m	То 0.5 ш	To 0.5 m	To 0.2 H	То 1.3 ш	То 2.3 m	To 0.2 m	To 2.3 m	To 1 m
Range	Eastern	U. S.	Eastern and mid U. S.	Eastern U. S.	Entire U. S. except MW, PNW, CA, SW	Entire U. S.	Eastern U. S.	PNW, CA	CA	MA, SE, FL, MS, SW, SP, MP	Entire U. S.	PNW, CA	Entire U. S.	NE, MA, SE, SP, GL, PNW, CA	Entire U. S.	Entire U. S.	Entire U. S.	Entire U. S.	Entire U. S.
Planting Periods	Apr-Jun	ļ	Apr-Jun	Apr-Jun	Apr-Jun	Apr-June	Mar-June	Apr-June	Mar-June	Apr-June	Mar-June	Apr-June	Oct-Dec	Sept-Nov	April-June	April-June	April-June	April-June	April-Sept
Temporary Storage Requirements	Drv. cool area		Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area soak in hot H <sub>2</sub> 0 before planting	Dry, cool area	Dry, cool area	Moist cold room (tubers) Dry, cool area (seeds)	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	In sand beds (trans.) moist, cool area
Collection Periods	.fu]v=0ct	200	June-Sept	May-Oct	Jun-Oct	May-Sept	Apr-Nov	June-Sept	July-Sept	July-Sept	July-Oct	June-Sept	Dec-Feb	Apr-July	July-Oct	June-Sept	June-Sept	Sept-Nov	April-Sept
Best Propagule Type		33,000	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Tubers, seeds	Seeds (inoculated)	Seeds	Seeds	Seeds	Seeds	Seeds	Seeds	Transplants, seeds
Species (Alphabetized by Common Name)	Herbs (Continued)	(Solanum nigrum)	Blackseed plantain (Plantago rugelii)	Bottlebrush ( <u>Plantago arenaria</u> )	Bracted plantain ( <u>Plantago aristata</u> )	Broadleaf plantain, (Plantago major)	Buckthorn plantain $(\frac{Plantago}{1}$ lanceolata)	Bush lupine ( <u>Lupinus arboreus</u> )	Calandrinia (Calandrinia maritima)	Camphorweed (Heterotheca subaxillaris)	Chufa ( <u>Cyperus esculentus</u> ) <sup>1,2,3</sup>	Coast deervetch (Lotus formosissimus)	Common chickweed (Stellaria media)	Common filaree (Erodium cicutarium)	Common lambsquarters (Chenopodium album)	Common mullein (Verbascum thapsus)	Common purslane (Portulaca <u>oleracea</u> )	Common ragweed (Ambrosia artimisiifolia)	Common spikerush ( <u>Fleocharis palustris</u> )

Remarks	tri- Occurs in moist soils in I sun fresh and brackish ar- eas, good wildlife food	cultivated in most soils iseed for haman food, hay and forage, especially in the south	Cultivated on most soils orth, for hay and grazing, fast and on rights-of-ways	san- Occurs in waste areas and sun dry soils, pest plant	ep Pest plant, occurs in er- waste areas and crops and in most soils	Occurs waste areas, dry soils	is, Occurs in moist soils in in fresh, brackish areas	nding Occurs in most soils, waste places and fields, prefers well-drained areas	unt, Occurs in most soils, un to very slow growing	tt Prefers dry soils full	, Pest plant, prefers moist sun soil, tolerates salt spray, common on coasts	ct, Pest plant, occurs in most	nt, in low ground pastures, extremely hardy	Cultivated for forage, d, occurs in most soils, sum excellent erosion confrol	y Occurs in most soils, pest full in soybean fields	forms Occurs on poor dry soils, excellent nitrogen fixing legume, crowds out grasses	oiny, Occurs in most dry soils,
Orowth Habits	Perennial, upright, tri- angular stems, full sun	Summer annual, viney, fast growing, good seed producer, full sun	Strong perennial in south, annual in north, procumbent stems, fast growing	Many branched, stout an- nual, robust, full sun	Perennial, stout, deep tap root, erect, per- sistent, full sun	Perennial, long tap roots, full sun	Perennial, tiny stems, turf-like, full sun	Annual, tufted, ascending stems, full sun	Perennial, vincy plant, forms mats, full sun to shade	Perennial, long stout rootstock, erect, full sun	Annual, stout, erect, persistent, full sun	Annual, scruffy, erect, branched, full sun	Perennial, stout, sharp stemtips, persistent, full sun	Annual or biennial, viney, weak stemmed, fast growing, full s	Annual legume, widely branched, robust, full sun	Winter annual, low, forms carpet, procumbent, full sun	Perennial, erect, spiny, branched, full sun
Mature Height	To 2 m	То 0.5 ш	Tc 0.5 m	To 1 m	To 1.3 m	Тс 0.5 ш	To 1 m	To 0.3 m	То 2.3 ш	To 1 m	То 0.5 ш	To 1 m	To 2 m	То 1 ш	То 4 ш	То 0.3 ш	То 1.3 ш
Range	Entire U. S. except SW	Entire U. S.	Entire U. S.	CA, SW	Entire U. S.	CA.	Entire U. S. except SW	PNW, CA	NE, MA, MRV, GL, FNW	Eastern and mid U. S.	Entire U. S. except PNW, CA	Entire U. S.	Entire U. S.	Entire U. S.	SW, MA, SE, FL, MS, SP	Entire U. S.	Eastern U. S. and
Planting Periods	Mar⊸June	Mar-Sept	Dec-Feb (south) Mar-Jul (north)	Apr-June	Apr-June	April-June	Mar~June	Nov-May	Feb-June	Mar-June	Apr-June	Mar-June	Mar-June	Nov-Feb (south) Mar-May (north	Mar-June	Oct-Feb (south) Jan-Apr (north)	Apr-June
Temporary Storage Requirements	In sand beds (trans.) moist cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	In sand beds dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Dry, cool area	Remove pulpy coat drv. cool area
Collection Periods	Sept-Mar (trans) July-Oct (seeds)	June-Sept	Mar-Apr (south) June-Sept (north)	Aug-Oct	Apr-July	June-Sept	Mar-Nov (trans) June-Sept (seeds)	April-Sept	May-Sept	April-Oct	July-Oct	June-Sept	June-Sept	Mar-Apr (south) Apr-Jul (north)	Aug-Nov	Jan-Mar (south) Mar-Jun (north)	May-Sept
Best Propagule Type	Transplants, seeds	Seeds (inoculated)	Seeds (inoculated)	Seeds	Seeds	Seeds	Transplants, seeds	Seeds	Seeds (inoculated)	Seeds	Seeds	Seeds	Phizomes, transplants	Seeds (inoculated)	Seeds	Seeds (inoculated)	Seeds
Species (Alphabetized by Common Name)	Herbs (Continued) Common threesquare (Scirpus americanus)	Cow pea (Vigna sinensis) <sup>1,3</sup>	Crimson clover (Trifolium incarnatum)	Croton (Croton californicus)	Curly dock (Rumex crispus)	Deerweed (Lotus scoparius)	Dwarf spikerush (Eleocharis barwila)	Filare (Erodium obtusiplicatum)	Flat pea (Lathyrus sylvestris) 1,3	Flowering spurge ( <u>Euphorbía</u> corollata)	Giant ragweed ( <u>Ambrosia trifida</u> )	Goosefoot (Chenopodium murale)	Hardstem bulrush (Scirpus acutus)	Hairy verch $(rac{Vicia}{Vicia} hirsuta)^3$	Hemp sesbania ( <u>Sesbania exaltata</u> )	Hop clover (Trifolium procumbens)	Horse nettle (Solanum carolinense)

Table 2 (Continued)

Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature Height	Growth Habits	Bemarks
Herbs (Continued)								
Horseveed ( <u>Erlgeron canadensis</u> )	Seeds	June-Nov	Dry, cool area	Apr-June	Entire U. S.	То 3.3 ш	Annual, stout, erect, fast growing full sun	Pest plant, occurs on most soils, tolerates salt spray, common on dredged material islands
Japanese clover ( <u>Lespedeza striata</u> )	Seeds (inoculated)	May-Sept	Dry, cool area	Feb-April	Entire U. S.	To 1 m	Annual, erect, many branched, full sun	Cultivated for forage, and silage, excellent on poor well-drained soils
Jerusalem artichoke ( <u>Helianthus tuberosus</u> )	Seeds	Sept-Oct	Dry, cool area	Apr-June	Eastern U. S. mid-U. S.	To 4 m	Perennial, fleshy, root- stock, tubers, stout, erect	Prefers moist soil, tubers are edible
Korean clover ( <u>Lespedeza</u> stipulacea) <sup>1</sup>	Seeds (inoculated)	May-Sept	Dry, cool area	Feb-Apr	Entire U. S.	To 1 m	Annual, erect, many branched, full sun	Cultivated for forage, hay, and sinage, excel- lent on poor well- drained soils
Ladino clover ( <u>Trifolium repens</u> var. <u>latum</u> ) <sup>3</sup>	Seeds (inoculated)	Mar-Apr (south) Apr-Jul (north)	Dry, cool area	Nov-Jan (south) Feb-Mar (north)	Entire U. S.	To l m	Perennial, fast growing, fleshy stems, creeping, full sun	Cultivated for forage, hay, and silage, excel- lent on poor, well- drained soils
Ladysthumb ( <u>Polygonum persicaria</u> )	Seeds	June-Oct	Dry, cool area	Apr-June	Entire U. S.	То 0.6 ш	Annual, ascending stems, variable branching, full sun	Prefers moist soils, in waste places, pest plant in some areas
Lespedeza striata) <sup>3</sup>	Seeds (inoculated)	May-Sept	Dry, cool area	Feb- <b>Ma</b> y	Entire U. S.	То 0.6 ш	Perennial, shrubby, full sun	Cultivated for forage, hay, and silage, high- way rights-of-ways, well-drained soils
Lupine ( <u>Lupinus polyphyllus</u> )	Seeds	May-Sept	Dry, cool area soak with hot H20 prior to planting	Apr-June	PNW, CA, SW	To 0.5 m	Ferennial, shrubby, full sun	Prefers dry, sandy soils
Malta starthistle (Centaurea melitensis)	Seeds	Apr-Sept	Dry, cool area	Feb-Apr	Entire U. 5.	То 1.3 ш	Annual, much branched, spiny yellow flowers, full sun	Occurs in most soils, waste and cultivated areas, pest plant
Mapleleaf goosefoot ( <u>Chenopodium lybridum</u> ) <sup>1</sup>	Seeds	Jul-Sept	Dry, cool area	Apr-June	Entire U. S. except PNW, CA	То 2.5 ш	Annual, erect, bright green, branched, shade to full sun	Occurs in woods and thickets or in open, most soil types
Marsh pea ( <u>Lathyrus pal</u> ustris) <sup>)</sup>	Seeds (inoculated)	May-Sept	Dry, cool area	Feb-June	Entire U. S.	То 1.3 ш	Perennial, viney shrub, very persistent, full sum	Prefers moist areas
Marsh pepper (Polygonum hydropiper) <sup>1</sup>	Seeds	Jul-Sept	Dry, cool area	Mar-June	Entire U. S.	То 0.6 п	Annual, erect, reddish green, may be branched, full sun	Occurs in moist waste places, sometimes in standing water
Maximillian's sunflower (Helianthus maximilliani)	Seeds	Aug-Nov	Dry, cool area	Apr-Jul	MA, SE, MS, SP, MP, NP, PNW	То 2 ш	Upright, coarse, stout, annual, full sun	Occurs in most soils, attractive flowers
Mexican tea ( <u>Chenopodium ambrosioides</u> )	Transplants, seeds	Aug-Oct	Dry, cool area	Apr-June	Entire U. S.	То 1 ш	Annual in north, peren- nial in south, much branched, erect, full sun	Pest plant, occurs in most soils, in cultivated and waste areas
Musk filaree (Erodium moschatum)	Seeds	Feb-July	Dry, cool area	Nov-April	CA	To 0.5 m	Winter annual, semierect, full sun	Prefers dry well-drained soils
Narrowleaf Vetch ( <u>Vicia angustifolia</u> ) <sup>1,3</sup>	Seeds	Feb-Apr (south) Apr-Jun (north)	Dry, cool area	Oct-Dec (south) Feb-May (north)	Entire U. S.	To la	Perennial, viney, trail- ing, spreading, full sun	Cultivated for pastures, hay, and silage

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Species	Best Propagule		Temporary Storage			Mature		
(Alphabetized by Common Name)	Type	Collection Periods	Requirements	Planting Periods	Range	Height	Growth Habits	Remarks
<pre>Herbs (Continued) Nodding smartweed (Polygonum lapthifolium)</pre>	Seeds	June-Sept	Dry, cool area	March-June	Entire U. S.	Толш	Annual, much branched, nodes swollen, good seed producer, full sun	Occurs in most soil <sup>9</sup> wated in waste and cult <sup>3</sup> wated areas
Nutsedge ( <u>Cyperus fillculmis</u> )	Corms, seeds	June-Aug	Dry, cool area	March-June	NP, MP, SP, FL	To 0.5 m	Perennial, hard oblong corms, ascending, full sum	Occurs in dry field <sup>\$</sup> on hills
Olney threesquare (Scirpus olneyi)	Transplants, seeds	Sept-March	In sand beds or in sand pots	April-June	Entire U. S. coastline	То 2.3 ш	Perennial, upright, stems 3-winged, full sun	Occurs in coastal and fresh moist areas; tolerates salinity
Orache (Atriplex patula)	Seeds	Aug-Oct	Dry, cool area	April-June	Entire U. S. coastline	То 1 п	Annual, widely branched, fruiting bracts, fleshy, full sun	Occurs in saltmeadovijulan along coasts, and areas
Partridge pea (Cassia fasciculata),3	Seeds (inoculated)	July-Oct	Dry, cool area, soak seeds in water be- fore planting	April-June	Eastern U. S.	To 1 m	Annual, widely branched, erect, spreading, full sun	In dry soils, common, south in cultivate of fields and disturbe areas
Pennsylvania smartweed (Polygonum pennsylvanicum)	Seeds	July-Sept	Dry, cool area	March-June	Eastern and mid U. S.	То 1.3 ш	Annual, ascending, branched stems, full sun	Occurs on most soils', one fers moist soil, fines pest plant
Pickleweed (Rumex occidentalis)	Seeds	May-Aug	Dry, cool area	April-June	CA, PNW, NE, SW	To 1 m	Perennial, stout stem, erect, unbranched, full sun	Prefers wet places
Pokeberry ( <u>Phytolacca americana</u> )	Seeds	Sept-Oct	Dry, cool area	Mar-June	Entire U. S. except NP, PNW, MW, SW	То 3 п	Robust perennial, with several purple stems, full sun to shade	Occurs in most soil and waste places
Prostrate knotweed (Polygonum aviculare)	Seeds	June-Oct	Dry, cool area	Apr-June	Entire U. S.	то 0.6 в	Annual, prostrate or ascending stems, creeping full sum	Pest plant in many $o_1^{rv}$ occurs in most $so^{1/5}$
Prostrate pigweed (Amaranthus <u>blitoides)</u>	Seeds	June-Oct	Dry, cool area	Apr-June	NE, GL, MRV, NP	то 0.6 ш	Annual, many branched, prostrate, spreading, full sun	Prefers well-drained of the soils, occurs in we areas, pest plant aoils
Prostrate spurge (Euphorbia supina)	Seeds	May-Sept	Dry, cool area	Mar-June	Entire U. S.	То 0.5 п	Perennial, procumbent branches, stout at rootstock, full sun	Prefers well-drained
Purple nutsedge ( <u>Orerus rotundus</u> )	Tubers, seeds	July-Sept	Moist, cool area (tubers) dry, cool area (seeds)	March-July	Entire U. S.	To 0.5 m	Perennial, extremely hardy and persistent, full sun	Pest plant in lawns, gardens, fields, pastures
Purple vetch (Vicia americanus)	Seeds (inoculated)	Mar-May (south) May-Jul (north)	Lry, cool area	Nov-Feb (south) Mar-May (north)	Entire U. S.	To 1 m	Perennial, viney, trail- ing, spreading, full sun	Cultivated for past <sup>yy</sup> hay, and silage
Red clover (Trifolium pratense) 1,3	Seeds (inoculated	Mar-Apr (south) Apr-Sep (north)	lry, cool area	Jan-Mar (south) Mar-Jun (north)	Entire U. S. except MW	То 0.6 ш	Perennial, ascending stems, many branched, full sun	Cultivated as forage ser hay crops, soil converse vation areas
Redroot pigweed (Amaranthus retroflexus)	Seeds	June-Oct	Dry, cool area	March-June	Entire U. S.	To 1 m	Coarse, summer annual, deep red taproot, very hardy, and persistent, shade to full sun	Occurs on most soil "Oralic pest plant in agronoms and feedlot situation.
Reseeding soybean ( <u>Olycine ussuriensis</u> ) <sup>3</sup>	Seeds	Sept-Nov	Lry, cool area	Mar-July	SE, MS	то 1 в	Annual legume, viney stems, full sun	Cultivated as waterfor food, occurs in mos soils
River bulrush ( <u>Scirpus fluviatilis</u> ) <sup>1</sup>	Root stock	Sept-April	In sand beds or pots of sand	April-June	NE, MA, SE, CA	To 2 m	Perennial, erect, widely spreading seed head, full sun	Occurs in moist are <sup>85</sup> interior U. S.
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Table 2 (Continued)

Species	Best Propagule	2000	Temporary Storage	Down Down	200	Mature	Currently Hobits	Domo Win
Herbs (Continued)	i i							
Saltmarsh bulrush (Scirpus robustus)	Root stock	Sept-March	In sand beds or pots of sand	March-June	MS, SP, CA, PNW	То 2 ш	Perennial, spiney seed, triangular stems, full sun	Prefers marshes, occurs on dredged material islands
Saltwort ( <u>Salsola kali</u> ) <sup>1</sup>	Transplants	Sept-March	In sand beds or in pots of sand	March-June	NE, MA, SE, FL	To 0.6 m	Annual, spiny, much branched, gray leaves, full sun	Prefers coastal moist areas, tolerates brackish soils
Sea blite ( <u>Suaeda maritima</u> )	Seeds	July-Sept	Dry, cool area	March-June	Entire U. S. in salt marshes	To 1 m	Annual, much branched, full sun	Prefers coastal moist areas, tolerates salt spray
See ox-eye (Borrichia frutescens)	Seeds, transplants	July-Sept (seeds) Sept-March (trans.)	Dry, cool area (seeds) B&B or potted (trans.)	Feb-May	Eastern and southern U. S. coasts	To 0.5 m	Shrubby, fleshy, gray foliage, full sun	Occurs in sandy, coastal areas, tolerates salinity
Sesshore lupine ( <u>Lupinus littoralis</u> )	Seeds	May-Sept	Dry, cool area, soak in H <sub>2</sub> 0 before planting	March-June	PNW, CA	То 0.5 ш	Perennial, scrubby, full sun	Frefers sandy beaches and marshes
Sesside dock (Rumex maritima)	Seeds	July-Oct	Dry, cool area	April-June	Entire U. S. except SE, FL, MS	To 0.1 m	Perennial, deep roots, erect, fast growing, full sun	Prefers moist sandy areas, tolerates salt spray
Sesside goldenrod ( <u>Solidago sempervirens)</u>	Seeds	Aug-Dec	Dry, cool area	April-June	Eastern and southern U. S. coasts	То 2.6 ш	Perennial, stout, erect, very leafy, large flower, full sun	Occurs on coasts and dredged material islands
Seaside plantain ( <u>Plantago maritina</u> )	Transplants, seeds	Mar-Oct (trans) Jun-Sept (seeds)	In sand beds or pots, dry, cool area	March-June	Entire coastal U.S.	To 0.2 m	Annual and perennial, fleshy rootstock and stems, full sun	Prefers salt marshes and seashores, tolerates salinity
Sericea lespedza ( <u>Lespedeza cuncata</u> )	Seeds	Sept-Dec	Dry, cool area	March-June	FI, MP, MA, SE, MRV, SP, MS	To 1 m	Woody perennial, dense fine foliage, good seed production, full sun	Occurs in moist soils, used on rights-of-ways, in pastures, hay fields, and conservation projects
Sheep sorrel ( <u>Pumex acetosella</u> )	Seeds	May⊸June	Dry, cool area	Feb-April	Entire U. S.	To 0.3 m	Perennial, basal rosette, full sun	Grows in infertile acid soils, will die in fertile soils
Showy tick-trefeil (Desmodium canadense)	Seeds (inoculated)	July-Sept	Dry, cool area	April-June	Eastern U. S.	То 1.6 ш	Perennial, erect, much branched, pubescent, shade or sun	Prefers rich soils, grows in woods or open areas
Silverleaf croton (Croton punctatus)	Seeds	Aug-Oct.	Dry, cool area	April-June	FL, SE, MS	То 1 н	Annual, many branched, silver leaves, full sun	Occurs in coastal soils, tolerates salt spray, tolerates drought
Southern bulrush (Scirpus californicus)	Root stock	Sept-March	In sand beds or pots of sand	March-June	SE, MS, FL, CA	To the	Perennial, triangular stems, upright, droopy spikelets, full sun	Occurs in coastal moist areas, tolerates brack- ish soils
Southern ragweed ( <u>Ambrosia bidentata</u> )	Seeds	July-Oct	Dry, cool area	April-June	SE, MS, SP	To 1 m	Annual, hirsute, many branched, full sun	Occurs in dry upland soils, pest plant, occurs in waste areas
Soybean ( <u>Glycine max</u> ) 1,2,3	Seeds (inoculated)	Sept-Oct	Dry, cool area	April-July	Entire U. S.	То 0.6 ш	Annual, fast growing, high seed production, full sun	Cultivated extensively for beans, excellent wild-life food
Spotted burclover (Medicago arabica)	Seeds (inoculated)	Feb-April (south) April-July (north)	Dry, cool area	Nov-Jan (south) Feb-May (north)	Entire U. S.	По 0.5 в	Annual, spreading, stout, spiny seeds, full sun	In poor, dry soils
Spotted spurge (Euphorbia maculata)	Seeds	June-Nov	Dry, cool area	April-July	Entire U. S.	Тоорш	Annual, branched stem, prostrate, spreading, full sun	Prefers dry soils
			(Cont	(Continued)				

Table 2 (Continued)

Species	Best Propagule		Temporary Storage			Mature		
(Alphabetized by Common Name)	Type	Collection Periods	Requirements	Flanting Periods	Hange	neignt	Growin habits	nemerks
Reiss (Squarestem spikerush ( <u>Eleocharis quadrangulata</u> )	Transplants, seeds	Apr-Jul (trans.) Jun-Aug (seeds)	In sand beds or pots (trans.), dry, cool area (seeds)	March-July	Entire V. S.	To 1 m	Perennial, slender stems, square stems, full sun	Prefers moist areas, oc- curs on coasts in fresh
Sunflower ( <u>Helianthus giganteus</u> )	Seeds	July-Oct	Dry, cool area	April-June	Eastern and mid U. S.	To h m	Perennial, fleshy roots, creeping rootstock, branching, full sun	Prefers moist areas, stems often purple, showy flowers
Schweinitz's nutsedge ( <u>Cyperus schweinitizii</u> )	Seeds	Aug-Oct	Dry, cool area	April-June	NE, GL, MRV, NP, MP	To 1 m	Perennial, thickened corms, slender stems, full sun	Prefers sandy soils, and moist areas
Tansy mustard ( <u>Descurainia pinnata</u> )	Seeds	May-July	Dry, cool area	March-May	Entire U. S. except SW	То 0.6 ш	Annual, erect, branched, slender ascending branches, full sun	Prefers dry soils
Tropic croton ( <u>Croton glandulogus</u> )	Seeds	Aug-Oct	Dry, cool area	April-June	SE, FL, MS, SP, MA, MRV	To 1.5 m	Annual, rough, hardy, full sun	Pest in pasture areas, occurs in moist soils
Tumble-veed (Amaranthus albus)	Seeds	June-Sept	Dry, cool area	Mar-June	Entire U. S.	To 1 m	Annual, pale green, erect, bushy branched	Occurs in most soils, prefers dry
Virginia pepperweed ( <u>Lepidium virginicum</u> )	Seeds	May-Nov	Dry, cool area	Mar-June	Entire U. S. except CA, PNW	To 0.5 m	Many branched, hardy, full sun	In dry soils, pest plant in fields, on many dredged material islands
Western ragwed (Ambrosia psilostachya)	Seeds	Sept-Nov	Dry, cool area	Apr-June	MW, CA, SW, NE, GL, NP, MP, SP	To 2 m	Perennial, creeping root- stock, hardy, full sun	Prefers well-drained soils, a pest plant
White clover (Trifolium repens)1,2,3	Seeds (inoculated)	Mar-May (south) May-Sep (north)	Dry, cool area	Jan-Mar (south) Mar-Jun (north)	Entire U. S. except MW	To 0.3 m	Shallow rooted perennial with creeping branches, full sun	Cultivated as pasture and hay crops, occurs on moist soils
White sweetclover (Melilotus alba)	Seeds (inoculated)	Apr-May (south) Jun-Nov (north)	Dry, cool area	Nov-Feb (south) Mar-May (north)	Eastern U. S.	To 3.3 #	Annual, erect or ascending, branching, full sun	Roadsides, pastures, lawns, occurs in moist soils
Wild bean (Strophostyles helvola)	Seeds (inoculated)	Sept-Oct	Dry, cool area	March-June	Eastern and mid-U. S.	To 3 m	Summer annual legume, viney, full sun	Occurs on beaches, tolerates salt spray
Wild buckwheat (Polygonum convolvulus)	Seeds	June-Nov	Dry, cool area	Mar-June	Entire U. S.	To 1 m	Annual, viney plant, rapid growth, full sun	Occurs in most soils, a pest plant in crops
Wild sensitive pea (Cassia nictitans)	Seeds (inoculated)	June-Nov	Dry, cool area	Mar-June	Entire U. S.	То 0.3 ш	Annual, erect, branching, full sun	Prefers dry soil
Wild strawberry (Fragaria virginiana)	Seeds, transplants	Mar-May (south) May-Jul (north)	In sand beds (trans.) dry, cool area (seeds)	Sept-Feb	Eastern and mid U. S.	To 0.1 m	Perennial, stout, slender stalks, shade or sun	Prefers dry, rich soil, edible berries
Woolly croton ( <u>Croton capitatus</u> )1,3	Seeds	Aug-Oct	Dry, cool area	April-June	MA, SE, MS, SP, MP, MRV	То 2.3 п	Robust, branching annual, good seed production, full sun	Pest in pastures, grows on most soils, prefers sandy areas
Woolly indianwheat $(\underline{Plantago} \ \underline{purshii})^1$	Seeds	May-Aug	Dry, cool area	March-June	MW, SP, NP, MP	То 0.3 ш	Annual, ascending leaves, slender stems, full sun	Prefers dry plains and prairies, other dry areas
Yellow starthistle (Centaures solstitialis)	Seeds	July-Sept	Dry, cool area	April-June	NE, MA, MRV, MW, CA	То 0.6 m	Annual, branched, winged stems, full sun	Pest plant in cultivated areas
Yellow sweetclover (Melilotus officinalis) <sup>1</sup>	Seeds (inoculated)	May-Jun (south) Jul-Nov (north)	Dry, cool area	Nov-Feb (south) Apr-Jun (north)	Eastern U. S.	То 0.3 в	Annual, erect or ascending, full sun	Occurs in waste areas and fields, most soils

Table 2 (Continued)

Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature Height	Growth Habits	Remarks
Vines American bittersweet (Celastrus scandens)	Seeds	Sept-Nov	Dry, cool area	March⊸June	NE, MA, SP, SW, GL, MRV	To over 8m	Twining, woody vine, ascending trees or trailing on ground	Prefers rich, moist soil
Ramboo vine ( <u>Smilax laurifolia</u> )	Tuber, seeds	Sept-Mar (tubers) June-Sep (seeds)	In soil beds, dry, cool area	Feb-June	MA, SE, FL, MS, SP	Long trail- ing stems	Tuber rootstocks, stout, hardy, evergreen, spines, shade	Prefers moist areas in woods and thickets
Beach morning glory (Ipomoes stolonifers)	Rooted stems, seeds	Sept-April	In sand beds, dry, cool area	Mar-June	Eastern U. S. and SP	To 4 m	Perennial, twining, large roots	Prefers sandy beaches and dunes
Common greenbrier (Smilax rotundifolia)	Seeds	May-Aug	Dry, cool area	Mar-June	Eastern and mid-U. S.	Long trail- ing stems	Woody, 4-angled shoots, spiny, shade to sun	Prefers moist areas in woods and thickets, occurs in dry areas
Crossvine ( <u>Bignonia capreolata</u> )	Seeds	May-AuRust	Dry, cool area	Mar-June	SE, MS, FL, MRV	To 20 m	Woody, cross visible in cross-section, shade or sun	Prefers moist woods, occurs in moist open areas
Fox grape ( <u>Vitis labrusca</u> )	Seeds	Aug-Sept	Remove pulpy coat dry, cool area	Mar-June	MA, NE, MRV, SE	To 30 m	Climbing, large stem, shade	Prefers thickets, native stock for cultivated grape hybrids
Fringed cathrier $(\frac{\text{Smilax}}{\text{Smilax}} \frac{\text{hona-nox}}{\text{oon}})$	Tuber, seeds	Sept-Mar (tubers) Apr-Jul (seeds)	In soil beds (tubers) dry, cool area (seeds)	Apr-June	Eastern and mid-U.S.	Long trail- ing stems	Woody, 4-angled, large tubers, spiny leaves and stems, shade or sun	Prefers thickets, moist areas, occurs in dry habitats
Frost grape ( <u>Vitis vulpina</u> )	Transplants	.Tune-Oct	Remove pulpy coat dry, cool area	Mar-June	NE, MA, SE, MW	Long trail- ing stems	Climbing, pubescent, thin shining leaves, shade or sun	Prefers moist rocky areas, occurs in open moist areas
Japanese honeysuckle ( (Lonicera Japonica)	Root stock, transplants	June-Sept	Dry, cool area	Feb-June	Entire U. S.	Long climb- ing stems	Pubescent, fragrant, per- sistent, shade or sun	Pest plant in unkept areas, excellent forage plant
Kudzu ( <u>Pueraria lobata</u> ) <sup>3</sup>	Root stock, transplants	Sept-March	In soil beds or pots of soil	Feb-June	Entire U. S.	Long climb- ing stems	Hairy, 3-foliate leaves, sun or shade	Pest plant in unkept areas, excellent cover vine, ornamental
<pre>Lanceleaf greenbrier (Smilax smallii)</pre>	Seeds	April-August	Dry, cool areas	Mar-June	SE, FI., SP. MS	Long trail- ing stems	Woody, slender, no tubers or spines, shade or sun	Prefer dry thickets
Muscadine grape (Vitis retundifolia)1,3	Seeds, transplants	Aug-Oct	Remove pulpy coat dry, cool areas	March-June	SE, MA, FL, SP, MP, MS	Long trail- ing stems	Woody, slender stems, large leaves shade or sun	Prefers moist sandy soil in thickets, occurs in silt and clay in open
Peppervine ( <u>Ampelopsis</u> arborea)	Seeds	Sept-Oct	Dry, cool area	March-June	Entire U. S.	Long climb- ing stems	Numerous tendrils, aerial roots, fast growing, dense cover, sun or shade	Prefers wood and thickets, dry soil, but occurs in open areas
Savbrier ( <u>Smilax glauca</u> )	Seeds	Sept-Mar (tubers) June-Aug (seeds)	In soil beds (trans.) dry, cool area (seeds)	March-May	Eastern U. S. and SP	Long trail- ing stems	Deep, tuberous rootstock, stout spines, shade or sun	Prefers dry sandy soil, also called sassparilla
Summer grape (Vitis <u>aestivalis</u> )	Seeds	Sept-Oct	Remove pulpy coat, dry, cool area	March-Junc	SE, MS, FL	Long trail- ing vine	Evergreen, coarse- stemmed, persistent, sun or shade	Prefere dry soil in woods, it occurs in open
Supplejack (Berchemia scandens)	Seeds, transplants	May-August	Dry, cool area	March-June	ME, SE, FL, SP	High climb- ing stems	Shrub, tough, stout leaves and stems	Prefers moist woods, but occurs in open areas
Virginia creeper (Parthenocissaus quinquefolia) <sup>1</sup>	Seeds	Aug-Oct	Remove pulpy coat dry, cool areas	March-June	NE, MA, MRV, MS, SF, MP, NP	High climb- ing stems	Large leaves, bark loose and shreddy, tendrils, shade or sun	Prefers dry soil in thickets, occurs in the open
Wild bamboo ( <u>Smilax auriculata</u> )	Seeds	Oct-Nov	Remove pulpy coat dry, cool area	March-June	SE, MS, FL	Long trail- ing vine	Evergreen, coarse stemmed, persistent, sun or shade	Forms low thickets in the open or wood areas

Species	Best Propagule		Temporary Storage			Mature		
(Alphabetized by Common Name)	Type	Collection Periods	Requirements	Planting Periods	Range	Height	Growth Habits	Remarks
Shrubs and Small Trees								
American elderberry ( <u>Sambucus canadensis</u> )	Transplants, seeds	Sept-March July-Sept	In nursery, dry, cool place	?eb~June	Eastern and mid-U. S.	по оп	Deciduous, many stemmed, large flowers, full sun	Prefers moist soils, but occurs over wide soil ranges
American hornbeam (Carpinus caroliniana)	Transplants	Sept-March	B&B# or potted in nursery	Feb-June	Eastern and mid-U.S.	то 9 ш	Deciduous, round crown, partial or full shade	Prefers dry soils, often is understory in open woods
American plum ( <u>Prunus americana</u> )	Transplants, seeds	Sept-March July-Sept (seeds)	B&B or potted in nursery, dry, cool place	Feb-June	Eastern and mid-U.S.	то 9 ш	Deciduous, spreading crown, full to partial sun	Prefers moist soils, occurs in dense thick- ets, edible fruit
Arrowwood viburnum (Viburnum dentstum)	Transplants	Sept-March	B&B or potted in nursery	Feb-May	MS, SE	То 3 т	Deciduous, shrubby, large flowers, partial sun	Prefers moist soils, com- mon as understory
Autumn olive ( <u>Eleagnus umbellata</u> ) <sup>1</sup> ,2,3	Transplants	Sept-March	b&B or potted in nursery	March-June	MA, SE, MS, FL, SP	To 5 m	Evergreen in south decid- uous in north full sun, shrub full to partial sun	Prefers dry soils, drought resistent, very hardy
Bayberry (Myrica pensylvanica)	Transplants	Sept-March	B&B or potted in nursery	Feb-June	NE, MA	E G	Evergreen, very dense, full sun, shrub	Prefers sandy soils, occurs in coastal areas, common on dredged ma- terial, important habitat plant
Beach plum (Prunus maritima)	Transplants, seeds	Oct-March	B&B or potted in nursery	Feb-May	MA, NE	Тогш	Deciduous, low, many branched, full sun	Prefers sandy, coastal soils, edible fruit
Bearberry ( <u>Arctostaphylos uva-ursi)</u>	Transplants, seedlings	Sept-March	B&B or potted in nursery, cleaned and stratified (seeds)	Feb-June	NE, MA, GL, MRV, NP, MW, CA, PNW	То 0.2 ш	Evergreen, spreading shrubby, slow growth, shade to full sun	Occurs in dry, sandy, and rocky soils
Beautyberry (Callicarpa americana)	Transplants, seeds	Sept-March	B&B or potted in nursery	Feb-June	SE, MS, FL, MA	То 2.5 ш	Deciduous, shrubby abundant fruit, full sun to partial shade	Grows in variety of soil conditions, does best as understory plant
Sicolor lespedeza ( <u>Lespedeza bicolor</u> )	Transplants	Sept-Nov Mar-June	B&B or potted in nursery	March-June	MA, SE, FL, SP	To 3 m	Deciduous legume, irregular shrub, full sun	Tolerates poor soils and drought conditions, prefers well-drained, dry areas
Black raspberry ( <u>Rubus occidentalis</u> )	"ransplants	Sept-March	Potted in nursery or soil bed	Feb-June	NE, MA, SE, SP, MP	То 4 ш	Deciduous, spiny, glaucous, roots from stem tips, full sun	Occurs in most soils, per- sistent, pest plant in pastures
Blue brush (Ceanothus thryiflorus)	Seeds	June-Aug	Dry, cool area	Feb-June	PNW, CA	To 1 m	Deciduous, shrubby, shade to sun •	Occurs in dry, rocky, sandy areas, used for tea substitute by pioneers
Blue elderberry (Sambucus caerulea)	Seeds	July-Oct	Cleaned and strati- fied seeds	Feb-June	SW, CA, Faw	то 8 ш	Deciduous, many stemmed, showy flowers, full sun	Occurs in most soils in open or in edges of woods
Brazilian peppertree (Sobinus <u>terebinthifollus</u> )	Cuttings, transplants	Oct-April	In rooting medium (cuttings), B&B or potted (trans.)	Oct-June	抗	То 10 ш	Evergreen, many branched, tropical, showy flowers, full sun	Occurs in most soils below freeze line in Florida, common on dredged material islands
Brewer saltbush (Atriplex brewerl)	Seeds	June-Sept	Dry, cool area	Feb-June	CA, SW	То 0.5 ш	Shrubby, dense, full sun	Occurs in dry, saline soil, also known as sage brush
Buffaloberry (She <u>pheria</u> candensis) <sup>1</sup>	Seeds	inly-Sept	Cleaned and ctratified	March_June	NE, MA, GI., NP, SW	То 2.5 ш	Deciduous, shrubby, shade to sun	Occurs in moist soils

(Continued)

Table 2 (Continued)

Remarks	Occurs in dry and well-drained soils, both in	õ	soils, very dense wood Occurs in dry soils	Prefers moist areas, occurs in most soils	Occurs in moist or wet soils, in woods or in open	ŏ	ဝိ	Occurs in most soils, cultivated as an ornamental	Ferns, thickets, occurs in most dry and well- drained soils	Prefers moist soils, in open or edges of woods	Occurs in most soils including sand dunes and rocky areas	Occurs in dry soils in woody, thickets, and edges of woods	Used as an ornamental shrub over a large range, quite hardy, tol- erates alkaline soils	Occurs in woods and thickets, mostly in shade, sometimes in open areas	Occurs in most dry soils, in open thickets	Prefers sandy moist areas, in woods or open, in coastal areas	Prefers dry, soils, in woods or open areas	
Growth Habits	Perennial, shrubby, many seed pods, full sun to	part snade Perennial, woody, many branched, arching, full	Sun Deciduous, shrubby,	Deciduous, upright, shrubby, pubescent young twigs, full to partial sun	Deciduous, pubescent, 5-7 leaflets, shade or sun	Deciduous, thorny, arch- ing, fast growing, full sun	Deciduous, shrubby, shade to full sum	Evergreen, shrubby, ascending branches, full sun to partial shade	Deciduous, shrubby, thorny, large fruit, full sun	Deciduous, shrub or tree, seeds few, shade or sun	Deciduous, shrubby under- ground stems, forms thickets, shade or sun	Deciduous, much branched, irregular, shade or sun	Spreading, narrowleaf evergreen shrub, full sun	Deciduous, large waxy leaves, sweet taste, shade or sun	Deciduous, thorny, bitter fruit, showy flowers, full sun	Evergreen, thorny, slow growing, full sun	Deciduous, large leaves, pubescent, shade or sun	
Mature Height	То 0.5 ш	To 1 m	To 2 H	To 7 m	То 14 п	To 1.5 m	To 7 m	То 10 ш	То 2 ш	To 10 m	To 10 m	To 2 m		To 3 m	To 7 m	То 8.5 ш	To 14 m	
Range	PNW, CA	PNW, CA	PNW, CA	SE, NE, MA	MA, SE, FL, MP, MS, SP	Eastern and mid U. S.	PNW, CA	SE, MS, MA	SE, MS, MA, SP	SE, FL, MS, SP	MS, MRV, GL, MP, MW, SW, PNW, CA	Eastern U. S.	GL, MS, SE	MA, SE, MS	MA, SE, FA, MS	SE, FL, MS	SE, MS	
Planting Periods	March-June	<b>Feb-Ма</b> у	Feb-May	Mar-June	Mar-June	Feb-June	Apr-June	March-June	Feb-May	Feb-June	Mar⊸June	Feb-May	March-June	Feb-May	Feb-May	Feb-May	Feb-June	nued)
Temporary Storage Requirements	Dry, cool area	B&B or potted in nursery (trans.)	cleaned and strati- fied (seeds) B&B or potted in	B&B or potted in nursery (trans.) cleaned and strati- fied (seeds)	B&B or potted in nursery	Cleaned and stratified (hips), in rocting medium (cuttings)	Cleaned and stratified	B&B or potted in nursery	Cleaned and stratified	B&B or potted in nursery	Cleaned and stratified	B&B or potted, cleaned and stratified	B&B or potted in nursery, stratified at 5°C	B&B or potted in nursery	B&B or potted (trans.) cleaned and strati- fied (seeds)	B&B or potted in nursery	B&B or potted in nursery	(Continued)
Collection Periods	July-Sept	Sept-Apr (trans.) Jun-Jul (seeds)	Sept-Mar	Sept-Apr (trans.) May-June (seeds)	Sept-March	July-Oct (hips) April-Oct (cuttings)	July-Sept	Sept-March	June-July	Sept-March	Aug-Sept	Sept-Mar (trans.) Apr-June (seeds)	Sept-March (seedlings) Sept-Nov (seeds)	Sept-March	Sept-March (trans.) May-July (seeds)	Oct-March	Sept-March	
Best Propagule Type	Seeds	Seeds, transplants	Transplants	Seeds, transplants	Transplants	Hips, cuttings	Seeds	Transplants, cuttings	Seeds	Transplants	Seeds	Transplants, seeds	Seeds, seedlings	Transplants	Transplants, seeds	Transplants	Transplants	
Species (Alphabetized by Common Name)	Shrubs and Small Trees (Continued) Bush lupine (Lupinus albifrons)	California blackberry (Rubus <u>ursinus</u> ) <sup>1</sup>	California buckthorn (Rhamnis californica)	1 <u>s</u> }	Carolina ash ( <u>Fraxinus caroliniana</u> )	Carolina rose ( <u>Rosa carolina</u> )	Cascara buckthorn (Rhamnus purshiana)	Cherry laurel (Frunus carolinians) <sup>1,3</sup>	Chickasaw plum ( <u>Prunus angustifolia</u> )	Common buckthorn (Rhamnus caroliniana)	Common chokecherry ( <u>Frunus virginiana</u> )	Common deerberry (Vaccinium stamineum)	Common juniper (juniperus comm <u>unis</u> )	Common sveetleaf (Symplocos tinctoria)	Crabapple (Malus angustifolia)		Downy serviceberry ( <u>Amelanchier arborea</u> )	

Table 2 (Continued)

Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature Height	Growth Habits	Remarks
Shrubs and Small Trees (Continued) Eastern hophornbeam	Transplants	Sept-March	B&B or potted in	Feb-June	NE, GL, MP,	To 10 m	Deciduous, hardwood,	Prefers dry soils, in
(Ostrya virginiana)			nursery		SE, MA, FL, MS		shade or sun	*COURS OF THE OPEN ALTERS
Elderberry (Sambucus glauca)	Seeds	June-Aug	Cleaned and stratified	Feb-June	MW, PNW, CA, SW	To 7 m	Deciduous, large seed- heads, few branches	Occurs in dry soils
Elderberry (Sambucus callicarpa)	Seeds	June-Aug	Cleaned and stratified	Feb-June	PNW, CA	To 7 m	Deciduous, shrubby	Occurs in dry soils
Evergreen blackberry (Rubus laciniatus)	Seeds	June-July	Cleaned and replanted	Aug-Sept	Eastern U. S.	To 4 m	Stout, deciduous, arching branches, persistent	Pest plant in pastures, cultivated for fruit
Firethorn (Pyracantha coccinea)	Seeds, transplants	Sept-Jan (seeds) Sept-Mar (trans.)	Cleaned and stratified (seeds), B&B or potted (:rans.)	Feb-May	MA, SE, SP, FL, MS	To t m	Evergreen, irregular, hardy, showy flowers and fruit, full sun	Occurs in most soils, does well in wet or dry areas, cultivated as ornamental
Flowering dogwood (Cornus floridg)	Transplants	Oct-Feb	B&B or potted in nursery	Feb-April	Eastern U. S. and SP	То 15 ш	Deciduous, bushy crown, showy flowers, shade or sun	Occurs in dry soils, cultivated as orna- mental, in woods or in open areas
Gallberry ( <u>llex glabra</u> )	Transplants	Oct-March	B&B or potted in nursery	<b>Feb-ма</b> у	NE, MA, SE, FL, MS	To 2 m	Evergreen, sirubby, dot- ted underside of leaves, shade or sun	Prefers sandy soil, occurs on coasts
Gray dogwood ( <u>Cornus racemosa</u> )	Transplants	Sept-March	B&B or potted in nursery	Feb-May	Eastern and mid-U.S.	To 2 m	Dense deciduous, shrubby, gray bark, shade or sun	Prefers moist soils, occurs in thickets, woods, open areas
Ground blueberry $(V_{f qccinium} \   { m Myrsinites})^1$	Seeds	May-June	Cleaned and stratified	Jan-March	SE, MS, MA	То 2 ш	Evergreen, pubescent, few branches, shade or sun	Prefers moist areas, in woods or open areas
Groundsel tree (Reccharis halimifolis)	Seeds, transplants	Sept-Nov	B&B or potted (trans.) dry, cool area (seeds)	Jan-May	SE, MA, MS, SP, NE	То 3.5 ш	Many branched, deciduous shrubby, full sun	Prefers moist areas, occurs on sea coasts, tolerates salinity
<pre>Halberd-leaved willow (Salix hastata)1,3</pre>	Transplants	Sept-March	B&B or potted	Feb-June	Entire U. S.	To 10 m	Many branched, deciduous full sun	Cultivated as ornamental
Hibiscus (Hibuscus moscheutos)	Seeds, transplants	Sept-Mar (trans.) June-Aug (seeds)	F&B or potted (trans.) dry, cool area (seeds)	Feb-June	NE, SE, MA, FL, MS, SP	То 2.3 п	Deciduous, many branched, erect, large seed pods, full sun	Prefers moist soils, tolerates some salinity, occurs on coasts and inland
Highbush blueberry (Waccinium corymbosum), 3	Seeds, cuttings	Jan-Feb (trans.) June-Aug (seeds)	Cooled, cleaned, and planted (seeds) layered in rooting medium (trans.)	Feb-June	NE, SE, MA, FL, MS	To 4 m	Deciduous, erect, hardy, many branched, shade to full sun	Occurs in moist soils
Hollyleaf cherry ( <u>Frunus ilicifolia</u> )	Seeds, transplants	July-Sept	Cleaned and stratified	Nov-May	CA	To 8 m	Evergreen, serrated holly-like leaves, full sun	Prefers dry soils
Honey mesquite ( <u>Prosopis juliflora</u> )	Seeds	Aug-Sept	Dry, cool area	Feb-May	SP, SW	To 14 n	Deciduous, shrubby, thorny irregular crown, full sun	Prefers dry, sandy, or loam soils, pest plant in western pastures
Hooker's willow (Salix hookerlana)	Cuttings	year-round	Layered in rooting medium	Feb-June	PNW, CA	То 10 п	Deciduous, shrubby, pubescent, full sun	Prefers moist areas, tolerates shifting sand and flooding
Japanese lespedeza ( <u>Lespedeza japonica</u> )	Seeds, inoculated	May-Sept	bry, cool area	FebJune	Entire U. S.	To 1 m	Shrubby, woody, peren- nial, full sun	Cultivated for grazing
Low blueberry (Yaccinium vacillans)	Seeds	June-July	Cleaned and stratified	Oct-May	SE, MA, MS	То 0.6 ш	Shrubby, erect, rhizomous, stout, shade or sun	Prefers dry areas, thickets or woods

(Alphabetized by Common Name)	Rest Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature Height	Growth Habits	Remarks
Shrubs and Small Trees (Continued) Mapleleaf viburnum	Seeds	July-Oct	Cleaned and stratified	Feb-May	SE, MS, MA	To 1 m	Deciduous, shrubby, maple	Thickets or open areas
(Viburnum acerifolium)							shape leaf, shade or sun	
Marsh elder ( <u>Iva frutescens</u> )	Transplants	Oct-April	B&B or potted in nursery	<b>Те</b> Ъ−Мау	NE, MA, SE, FL, MS, SP	m 4 or	Deciduous, many branched, serrated leaves, full sun	Prefers sandy, moist areas, occurs on coastal islands, dunes and marshes
Mountain blackberry ( <u>Rubus</u> allegheniensi <u>s</u> )	Seeds, rootstock	June-July (seeds) Year-round (rootstock)	Cleaned and replanted (seeds), in soil beds (root stock)	Sept-Nov (seeds) Feb-May (rootstock)	NE, MA, GL, MRV	То 3.5 я	Deciduous, hardy, very robust, prolific fruit- ing, full sun, spiny	Pest plant in pastures, occurs and thrives almost anywhere
Multiflora rose ( <u>Rosa multiflora</u> ) <sup>1,3</sup>	Transplants	Sept-March	B&B or potted in nursery	Feb-June	Entire U. S. except NP	To the	Deciduous, arching, thorny, showy flowers, full sun	Pest plant in unkept pastures and fields, cultivated for wind- breaks and cover
Myrtle oak ( <u>Guerous myrtifolia</u> )	Transplants	Oct-March	B&B or potted in nursery	Oct-Mar	Ĭ	To 15 m	Evergreen, leathery, full sun	Prefers sandy coastal soils, tolerates salt spray
Northern bayberry (Myrica pensylvanica)	Transplants	Oct-Mar	B&B or potted in nursery	Feb-June	NE, MA	То 15 ш	Evergreen, pubescent, dense, dark green, full sun	Prefers sandy coastal soils, tolerates salt spray
Oleander (Nerium <u>oleander</u> )1,2,3	Transplants	Oct-Mar	B&B or potted in nursery	Feb-April	SW, FL, MS	To 10 m	Evergreen, dense, upright stems, showy flowers, full sun	Prefers dry sandy soils, tolerates salt spray and drought, not freeze tolerant
Pacific bayberry ( <u>Myrica californica</u> )	Transplants	Sept-Mar	B&B or potted in nursery	Mar-June	PNW, CA	To 9 m	Evergreen, shrubby, dense foliage, full sun	Prefers sandy sites, occurs in coastal areas, tolerates salt spray
Facific degwood (Cormus nuttallii)	Transplants	Sept-Mar	B&B or potted in nursery	Feb-June	FNW, CA	To 3 m	Deciduous, shrubby, erect, bushy, full sun and shade	Prefers Well-drained areas
Pacific wax myrtle (Myrica californica)	Transplants	Oct-Feb	B&B or potted in nursery	Feb-May	PNW, CA, coasts	То 11 ш	Evergreen, thick shrubs, ascending branches, full sun	Prefers moist areas, occurs in marshes, gullies, sand dunes, islands
Pacific willow (Salix lasiandra)	Cuttings, transplants	Year-round (cut.) Sept-Mar (trans.)	In rooting medium (cut.), B&B or in pots (trans.)	Feb-May	PNW, CA	To t m	Deciduous, shrubby, feat growing, full sun	Prefers moist areas
Poison ivy (Rhus <u>radicans</u> )	Transplants	Sept-Mar	B&B or in pots in nursery	Feb-June	Entire U. S.	To 5 m	Deciduous, fast growing, full sun	Prefers moist areas, vine form not recommended for planting
Possumhaw ( <u>llex decidua</u> ) <sup>1,3</sup>	Seeds	Sept-Dec	Cleaned and stratified	Mar-June	OL, SP, MP, MRV, SE, MS, MA, FL	То 10 ж	Deciduous, red berries, very showy, shade or sun	Prefers moist areas, cultivated as ornamental
Possumhaw viburnum ( <u>Viburnum nudum</u> )	Seeds	Aug-Oct	Cleaned and stratified	Mar⊸June	SE, MS, MA,	To 8 m	Deciduous, large leaves, shade or sun	Occurs in moist soils, in woods or in open
Purple osier willow (Salix purpurea)	Transplants, cuttings	Sept-March	In rooting medium, B&R or potted	Mar-June	MA, MRV, NE	E to the	Deciduous, purple stems, slender, full sun	Cultivated as an ornamental, prefers moist places, used in bank stabilization
Pussy willow ( <u>Salix discolor</u> ) <sup>3</sup>	Transplants, outtings	Sept-March	8&B or potted in nursery	March-June	NE, NF, CL	न <b>्</b> इ	Deciduous, shrubby, full sum	Prefers moist soils, widely used as an ornamental

Table 2 (Continued)

o i cocco	Rest Propagalle		Temporary Storage			Mature		
(Alphabetized by Common Name)	Type	Collection Periods	Requirements	Planting Periods	Range	Height	Growth Habits	Remarks
Shrubs and Small Trees (Continued)								:
Quail brush (Atriplex <u>lentiformis</u> )	Seeds	July-Oct	Dry, cool area	Mar-May	MS	To 1 m	Deciduous, shrubby, pale green, full sun	Prefers dry, sandy soils tolerates salinity
Red alder ( <u>Alnus rubra</u> )	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium (cut.), B&B or in pots (trans.)	Feb-Мау	PNW, CA	То 15 ш	Deciduous, shrubby, up- right branches, full sun	Occurs on most soils, on cutover forest land, beaches, streams
Red buckeye (Aesculus pavia)	Transplants, seeds	Aug-Oct (seeds) Sept-Mar (trans.)	Stratified (seeds), B&B or in pots	Feb-May	SE, MS, SP	Тови	Deciduous, shrubby, shade or sun	Large fruit is inedible, occurs in most soils
Red osier dogwood (Cornus stolonifera)	Cuttings, transplants	Aug-April (cut.) Sept-April (trans.)	In rooting medium B&B or potted	April-June	NE, MRV, GL, NP, SW, PNW, MW	To 2.3 m	Deciduous, shrubby, stoloniferous, full to partial sun	Occurs in moist soils, prefers moist poorly drained areas
Riverflat havthorn ( <u>Crateagus opaca</u> )	Seeds	April-June	Cleaned and stratified	March-May	SE, MA, MS	To 5 m	Deciduous, leathery, thorny, shade or sun	Prefers dry soils, in woods or in open, red fruit
Rough-leafed dogwood (Cornus drummondii)	Transplants	Sept-March	B&B or potted	Feb-May	SE, MA, MS, SP, NP, MP	То 5 ш	Deciduous, showy flowers, fast growing, sun or shade	Prefers moist areas, occurs in most soils
Russian olive ( <u>Eleagnus angustifolius</u> )1,2,3	Seeds, transplants	Sept-Oct (seeds) Sept-March (trans.)	Cleaned and stratified (seeds), B&B or potted (trans.)	March-June	Entire U. S.	To 7 m	Evergreen, shrubby, spiny, irregular crown, full sun	Occurs in most soils, cultivated for wind break, roadside, ornamental
Rusty blackhaw (Viburnum rufidulum)	Seeds	July-Oct	Cleaned and stratified	Feb-April	SE, MS, MA, FL	То 3 ш	Deciduous, leathery, shiny green, shade	Prefers dry areas, in woods, but occurs in thickets and open areas
Salal ( <u>Gaultheria</u> <u>shallon</u> ) <sup>1,3</sup>	Transplants, root stock	Sept-March	B&B or potted in nursery	Feb-June	PNW, CA	То 2 ш	Evergreen, dark shiny leaves, shade	Prefers moist areas, cultivated for florist industry
Salmonberry (Rubus spectabilis) <sup>1</sup>	Seeds	June-Aug.	Cleaned and in dry cool area	March-June	PNW	То 5 ш	Deciduous, branching, leafy, shrubby, showy flowers, large fruit, shade	Occurs in moist areas, in woods and thickets
Saltbush ( <u>Atriplex polycarpa</u> ) <sup>1</sup>	Seeds	July-Oct	Dry, cool area	Feb-May	MS.	To 1 m	Deciduous, shrubby, pale green, full sun	Prefers dry, sandy soils, tolerates drought and salinity
Saltcedar ( <u>Tamarisk parviflora</u> ) <sup>1</sup> ・3	Transplants	Oct-March	B&B or potted in nursery	Feb-May	MA, SW, SP, MS, FL	To 5 m	Evergreen, small foliage, irregular crown, full sun	Prefers dry, sandy soils, tolerates drought and salinity
Sandbar willow (Salix interior)	Transplants cuttings	Sept-March	B&B or potted in nursery	March-June	NE, MRV, GL, MP, SP, MW	п 6 от	Deciduous, shrubby, dense, full sun	Prefers moist soils, riverbanks
Sand blackberry (Rubus cuneifolius)	Seeds	May-July	Cleaned and stratified	Feb-June	MA, SE, FL	То 1 ш	Deciduous, arching, erect, spiny, robust, full sun	Prefers dry, sandy areas
Sand pine (Pinus clausa),,,,,	Transplants, seedlings	Oct-March	B&B or potted in nursery	Fеb-Мау	FL, MS	то 6 ш	Narrowleaf evergreen, shrubby, full sun	Grows in poor soils, tol- erates droughty, sandy conditions, occurs on coasts
Sawtooth oak (Que <u>rcus acutissima</u> )3	Transplants	Sept-March	B&B or potted in nursery	Feb-May	SE, MS, FL, SP	То 10 ш	Deciduous, irregular growth, full sun	Cultivated for wildlife food, occurs on most soils
Sected broom (Cytigus secoparius) 1,3	Transplants	Sept-March	B&B or potted in nursery	Feb-May	PNW		Evergreen showy flowers, dense growth, full sun	Pest plant in some areas, cultivated as ornamental elsewhere
Sharp-toothyd blackterry ( <u>Pubus argutus</u> )	Rootstock, seeds	Year-round (root.)	In soil beds (root.) cleaned and strati- fied (seeds)	Sept-Nov (seeds) Feb-May (rootstock)	SE, MA, FL, MS, MRV	To 2 m	Deciduous, hardy, very robust, prolific fruit- ing, full sun, spiny	Pest plant in pastures, occurs and thrives almost anywhere
			(Cont	(Continued)				(Sheet 17 of 22)

Species	Best Propagule		Temporary Storage			Mature		
(Alphabetized by Common Name)	Type	Collection Periods	Requirements	Planting Periods	Range	Height	Growth Habits	Remarks
Shrubs and Small Trees (Continued)								
Shining sumac (Rhus copallina)	Seeds, rootstock	Sept-Nov Sept-March	Cleaned and stratified (seeds), in soil beds (rootstock)	Feb-June	Eastern and mid-U. S.	То и ш	Deciduous, little branch- ing, lateral spreading roots, forms thickets, full sun	Occurs in moist soils, in open areas
Shore pine (Pinus contorta), 3	Transplants, cuttings	Sept-March	B&B or potted in nursery	Feb-мау	PNW, CA	To 12 m	Narrowleaf evergreen, spreading, full sun	Coastal dumes plant, very hardy, can be grown from seeds
Shrub verbena ( <u>Lantana camara</u> ) <sup>1,3</sup>	Seeds, transplants	May-Sept (seeds) Sept-Mar (trans.)	Dry, cool area (seeds) B&B or potted (trans.)	Jan-April	FL, SE, MS, SP	To 1 m	Deciduous, tropical, showy flowers, full sun	Cultivated as ornamental, prefers moist, sandy soils
Silky dogwood (Cornus amonum)	Transplants	Sept-March	B&B or potted	Feb-June	Eastern and mid-U. S.	То 3.3 ш	Deciduous, purplish stems, full sun	Prefers moist soils, in woods, and in open
Silky villow (Salix sericea)	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium, B&B or potted (trans.)	March_June	NE, MA, GL, MRV	To km	Deciduous, purplish stems, pubescent, full sun	Prefers wet to moist soils, in open areas
Sitka alder ( <u>Alnus sinuata</u> )	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium, B&B or potted (trans.)	Feb-May	PNW	To 10 m	Deciduous, shrubby, mul- tistemmed, full sun	Prefers moist soils, in open areas
Smooth summer (Rhus <u>glabra</u> )	Seeds	Sept-Feb	Cleaned and stratified	Feb-June	Entire U. S.	To 2 m	Deciduous, shrubby, few branches, forms thick- ets from roots, full sun	Occurs in most soils, in open areas
Southern bayberry ( <u>Myrica cerifera</u> )	Transplants	Sept-Mar	B&B or potted	Feb-May	SE, MA, FL, MS, SP	To 5 m	Evergreen, dense, upright branches, full sun	Prefers moist, sandy areas, occurs on sea-
Southern dewberry ( <u>Rubus trivialis</u> )	Seeds, transplants	April-May (seeds) Year-round (trans.)	Cleaned and stratified (seeds), B&B or potted (trans.)	Jan-March	SE, MS, FL, SP	То 1 ш	Deciduous, persistent, large fruit, full sun	Occurs in most soils, excellent wildlife food
Sparkleberry (Vaccinium arboreum)	Seeds	May-July	Cleaned and stratified	Jan-May	SE, MA, SP, MS	То 10 ш	Deciduous in north, ever- green in south, sprawl- ing, shrubby, shade or full sum	Occurs in dry soils, in woods or open thickets
Squaw huckleberry ( <u>Va</u> ccinium stamineum)	Seeds	May-June	Cleaned and stratified	Feb-June	Eastern and mid-U.S.	To 5 m	Deciduous, leathery, shrubby shade or sun	Occurs in dry woods or open thickets, edges of woods
Staghorn sumac (Rhus typhina)	Seeds	Oct-Dec	Cleaned and stratified	Feb-May	Eastern and mid-U. S.	To to m	Deciduous, few branches, showy fruit, full sun	Forms thicket, occurs in dry soils
Summersweet ( <u>Clethra alnifolia</u> )	Seeds	Sept-Nov	Cleaned and stratified	Feb-May	SE, MS	То 1.5 ш	Deciduous, ascending stems, pubescent, shade or sun	Occurs in most soils, in woods and open areas, cultivated as ornamental
Swamp privet (Forestiera acuminata)	Transplants	Sept-March	B&B or potted	Feb-May	SE, MS	То 8 ш	Deciduous, many branches, shrubby, shade or sun	Prefers moist, bottomland type soils (silt, clay)
Swamp rose (Rosa palustris)	Transplants	Sept-March	B&B or potted	Feb-June	MA, SE, MS	To 1 m	Deciduous, arching branches, full sun	Prefers moist soils
Tag alder ( <u>Alnus serrulata</u> )	Transplants, cuttings	Year-round (cut.) Sept-Mar (trans.)	In rooting medium, B&B or potted	Feb-May	NE, MA, MS, SP, MRV	То 5 ш	Deciduous, rusty, pubescent, shade or sun	Occurs in moist soils, in woods or in open areas
Tartarian honeysuckie ( <u>Lonicera tartarica</u> ) <sup>1</sup>	Transplants, rootstock	Sept-March	B&B, potted or in soil beds	Feb-June	Entire U. S.	То 2 п	Deciduous, showy flowers, full sun	Cultivated as ornamental shrub
Texar hulsache (Acacia smallii)	Seeds	Aug-Oct	Dry, cool area	Jan-April	SP, MS, SW	To 5 m	Deciduous, large seed pods, full sun	Prefers dry, sandy soils, tolerates drought and salinity

Table 2 (Continued)

Species (A) phabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature	Growth Habits	Remarks
Shrubs and Small Trees (Continued)								
	Transplants, cuttings	Sept-April	B&B or potted in nursery	March-June	Entire U. S.	Тот	Evergreen, robust, thorny, spreading, arching, full sun	Cultivated as ornamental, tolerates poor soil and salt spray
Toothache tree (Zanthoxylum clavaherculis)	Transplants	Sept-March	RAB or potted in nursery	Feb-May	SE, FL, MS, SP	To 12 m	Deciduous, fast growing, spiny, full or partial sun	Prefers well-drained soils, occurs on dredged material in Texas and North Carolina
Turkey oak (Quercus <u>laevis</u> )	Transplants, cuttings	Sept-March	B&B or potted in nursery	Feb-May	SE, MA, FL	To 10 m	Deciduous, large leathery leaves, full sun	Prefers sandy coastal areas
Wear myrtle (Myrica cerifera) <sup>1,3</sup>	Transplants	Oct-March	B&B or potted in nursery	March⊸ľune	SE, FL, MS, MA, SP	То 3.3 ш	Evergreen, dense, shrubby, ascending branches, full sun	Prefers moist areas, does well on poor, sandy coastal sites
Western bluckberry (Rubus vitifolius)	Transplants	Sept-March	B&B or potted	Feb-June	PNW, CA	To 1 m	Arching, deciduous, full sum	Occurs in dry soils, pest plant in pastures
Western chokecherry ( <u>Frunus virginiana</u> var.	Seeds	Aug-Sept	Cleaned and stratified	Feb-May	CA, PNW	То 8 п	Deciduous, bushy, full sun	Occurs in most soils, smells bad
Western dogwood (Cornus occidentalis)	Transplants	Sept-March	B&B or potted	Feb-May	PNW, CA	To 5 m	Deciduous, irregular branches, shade or sun	Occurs most soils, in woods or in open arcas
Western huckleberry (Vaccinium ovatum)	Transplants	Sept-March	B&B or potted in nursery	Feb-June	PNW, CA	То 2.5 ш	Evergreen, erect, slow growth, shade to sun	Occurs in dry woods
Wild apple ( <u>Malus pumila</u> )	Seeds, transplants	Aug-Oct (seeds) Sept-Mar (trans.)	Cleaned and stratified B&B or potted	Feb-May	Entire U. S.	To 7 m	Deciduous, thorny, showy flowers, large fruit, full sun	Occurs in most soils, parent stock of all commercial apple trees
Wild black currant (Ribes americanum)	Transplants	Sept-March	B&B or potted	Feb-June	Northern U. S.	То 1 ш	Deciduous, arching, erect branches shade	Occurs in most soils
Wild cherry (Prunus emarginata)	Seeds	Aug-Sept	Cleaned and stratified	Feb-June	PNW, CA, SW	То 10 п	Deciduous, bitter fruit, full sun	Occurs in most soils
Wild indigo (Eaptisia leucophaea)	Seeds, transplants	Sept-Oct	Dry, cool area (seeds) B&B or potted (trans.)	Jan-March	SP, MS, SE	To 1 H	Deciduous, tumbles, seed- pods rattle, full sun	Occurs in dry soils, pre- fers sand or silt, tolerant of salt spray
Wild rose (Rosa rugosa) <sup>1,3</sup>	Transplants, cuttings	Sept-March	D&B or potted in nursery (trans.), in rooting medium (cuttings)	Feb-June	MA, SE, MS, SP, FL	To 5 at	Deciduous, arching branches, thorns, profuse flowers, full sun	Prefers moist snils, fast growing, tolerant of wide range of soil conditions
Wingscale ( <u>Atriplex canescens</u> )	Seeds	Nov-Dec	Dry, cool place	Jan-May	Mw, Sw, CA	To 2.5 m	Evergreen, shrubby, much branched, full sun	Tolerates drought and wide range of soil condi- tions, prefers dry sandy soil
Winterberry (Ilex verticillata)	Transplants	Sept-March	B&B or potted in nursery	March-June	SE, MS	To 5 m	Deciduous, arching, rounded crown, full sun or shade	Wide range of soil conditions, prefers moist soils
Witch hazel (Hamamelis virginiana)	Transplants	Sept-March	B&B or potted in nursery	Feb-May	NE, MA, SE, MS, MP, CL, MRV	To 10 m	Deciduous, shrubby, partial sun to full shade	Prefers moist soils
Yaupon ( <u>liex vomitora</u> ) <sup>1,3</sup>	Transplants	Oct-March	B&B or potted in nursery	Jan-April	SE, MA, MS, SP, FL	To 6 m	Evergreen, forms dense thickets, has ornamen- tal dwarf form, full sun	Prefers sandy soils, grows on coast, tolerates salt spray
Yellow paloverde ( <u>Cercidium microphyllum</u> )	Transplants	Oct-March	B&B or potted in nursery	Jan-April	SW, CA	To T a	Deciduous, legume, shrubby, full sun	Tolerates extreme drought and some salinity, pre- fers sandy soil

Table 2 (Continued

Remarks	Best in moist conditions, poorly drained soils	Best in moist soils, but grows under a variety of conditions	Grows well in sandy soils, exotic naturalized in U. S.	Can be grown from seed, wood highly prized for furniture	Used for paper products, prefers moist soils, used for windbreaks and shade	Prefers moist soil	Tolerates drought and poor soil conditions, a legume	Varied soil conditions, good foodplant, excel- lent furniture wood, grows slowly	Very fast-growing, prefers moist and flooded soils	Prefers moist soils, fast growing	Used for paper products, shade, prefers moist soil	Produce commercially by tree nurseries, toler- ates alkaline soil, has shrub form under stressed conditions	Prefers moist sandy soil	Prefers moist soils, tol- erates poor soil conditions	Tolerates alkaline and sandy soils
Growth Habits	Deciduous, with shallow root system, full sun	Deciduous, wide spreading crown, full sun	Narrowleaf evergreen, drooping branches, full sun	Deciduous, upright crown, full sun	Deciduous, fast growing, large full sun	Deciduous, upright crown slow growing, full sun	Deciduous, fragrant flow- ers spiny, full sun	Deciduous, edible, up- right crown, sun to shade	Deciduous, shrubby, full sun	Deciduous, large edible seed, full sun to part shade	Deciduous, very fast growing full sun	Narrowleaf evergreen, drought tolerant, full sun	Narrowleaf evergreen, pyramidal crown, full sun	Deciduous, full or par- tial shade	Deciduous, large spread- ing crown, full sun
Mature Height	То 30 ш	To 30 m	То 45 ш	То 18 ш	То 38 ш	To 27 m	То 25 ш	To 30 m	To 12 m	То 24 п	То 30 ш	То 12 m	То 30 m	To 24 m	То 30 m
Range	NE, MA, SE, MS, GL, MRV, SP	NE, MA, SE, MS, SP, MP, NP, GI, MRV	FL, CA	NE, MA, SE, FL, MS, SP, MP, NP, GL	PNW, SW, CA	NE, MA, SE, FL, MS, SP, MP, NP, MRV, GL	MS, MA, MP	MA, SE, MS, SP, NP, MRV	SE, MS, MA, SP, FL	MA, SE, FL, MS, SP	MA, SE, GL, MRV, NP, MP, SP, MS	SE, MS, SP,	NE, GL, MA	Eastern and mid U. S.	SE, MS, SP, MRV, MP
Planting Periods	Mar-June	Mar-June	Dec-April	March-June	March-June	March-June	Mar-June	Mar-June	Feb-July	March-June	March-June	Feb-June	March→June	March⊸June	Feb-June
Temporary Storage Requirements	B&B or potted in nursery	B&B or potted in nursery	B&B or potted in nursery	B&B or potted in nursery	B&B or potted in nursery (trans.), layered in rooting medium (cuttings)	B&B or potted in nursery	B&B or potted in nursery	Stratified (seeds), B&B or potted (trans.)	B&B or potted in nursery (trans.), layered in rooting medium	Stratified at 5°C, B&B or potted in nursery	B&B or potted in nursery (trans.), layered in rooting medium (cut.)	B&B, potted in nursery, (trans.), stratified at 5°C (seeds)	B&B or potted in nursery	B&B or potted in nursery	B&B or potted in nursery
Collection Periods	Sept-March	Sept-March	Oct-Feb	Aug-Oct	Sept-March	Sept-March	Sept-March	Sept-Nov (seeds) Sept-Mar (seedlings)	Oct-March	Sept-Nov (seeds) Oct-March (trans.)	Sept-March	Sept-Mar (trans.) Sept-Nov (seeds)	Sept-March	Sept-March	Sept-March
Best Propagule Type	Transplants	Transplants	Transplants	Transplants	Transplants, cuttings	Transplants	Transplants	Seeds, seedlings	Transplants, cuttings	Seeds, transplants	Transplants, cuttings	Transplants, seeds	Transplants	Transplants	Transplants
Species (Alphabetized by Common Name)	Large Trees American beech (Fagus grandifolia) <sup>1,3</sup>	American sycamore (Platanus occidentalis) <sup>1,3</sup>	Australian pine ( <u>Casuarina equisetifolia</u> )1,3	Black cherry ( <u>Frunus serctina</u> ) <sup>1,3</sup>	Black cottonwood (Populus trichocarps), 3	Black gum ( <u>Myssa sylvatica</u> ) <sup>1</sup> ,3	Black locust (Robinia pseudo-acacia),3	Black walnut (Juglans nigra), 3	Black villov (Sa <u>lix nigra</u> )	Cow oak (Quercus michauxii) <sup>3</sup>	Eastern cottonwood ( <u>Populus deltoides</u> ) <sup>1,3</sup>	Eastern red cedar (Juniperus virginiana) <sup>1,3</sup>	Bastern white pine (Pinus strobus) <sup>3</sup>	Green ash (Fraxinus pennyslvanica)	Hackberry ( <u>Celtis</u> <u>occidentalis</u> ) <sup>1,3</sup>

Species (Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature Height	Growth Habits	Remarks
<pre>Large Trees (Continued) Honeylocust (Gleditsia triacanthos) 1,3</pre>	Transplants	Sept-March	B&B or potted in nursery	March-June	SE, MA, GL, MRV, SP,	To 24 m	Deciduous legume, spiny, full or partial sun	Prefers moist fertile soils
Laurel oak ( <u>Quercus laurifolia</u> ) <sup>1,3</sup>	Transplants	Sept-March	B&B or potted in nursery	Jan-March	SE, SP, MS	То 30 ш	Flat topped crown, broad- leaf evergreen, full sum	Prefers moist soils, occurs on coasts
Live oak ( <u>Quercus virginiana</u> ) <sup>1,3</sup>	Transplants	Sept-March	B&B or potted in nursery	Jan-May	SE, SP, MS, MA	То 15 ш	Evergreen, large spread- ing crown, full sun	Prefers sandy moist soils, and occurs on coasts, tolerates salt spray
Lobiclly pine (Pinus taeda),3	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-June	SE, SP, MS, MA	To 21 m	Narrowleaf evergreen, large crown, full sun	Coastal and interior plant, on sandy and silt soils, (poorly drained)
ngleaf pine ( <u>Pinus palustris</u> )1,3	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-May	MA, SE, MS, FL, SP	То 37 ш	Narrowleaf evergreen, tall open crown, full sun	Prefers sandy conditions, but occurs in other soils, occurs on coast
Mockernut hickory ( <u>Carya tomentosa</u> )	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-May	NE, MA, SE, FL, MS, MRV, SP, MP	То 25 ш	Deciduous, arching branches, full or par- tial sun	Prefers drier soils, edible nuts, hardy, common
per mulberry ( <u>Broussometia papyrifera</u> )	Transplants	Sept-March	B&B or potted in nursery	March-June	Eastern U. S.	То 15 m	Deciduous, arching branches, full or par- tial sun	Exotic, naturalized in U. S., fast growing, forms thickets
Peachleaf willow (Salix anygdaloides)	Transplants, cuttings	Sept-March	B&B or potted in nursery (trans.), layered in rooting medium (cuttings)	March-June	GL, NP, MP,	То 18 ш	Deciduous, drooping branches, full sun	Prefers moist soils, grows on dredged material islands
(Carya <u>illinoensis</u> ) <sup>3</sup>	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-May	SE, MS, SP, MP	To 43 m	Deciduous, irregular crown, full sun	Prefers moist soils, but grows in wide range of soil conditions, edible nuts
rsimmon (Diospyros virginiana)	Rootstock	Sept-March	In soil beds in nursery	Feb-June	MA, SE, FL, MS, SP, MP, MRV	To 18 m	Deciduous, drooping branches, full sun	Prefers moist, rich soils, but tolerates wide range of soil conditions, edible fruit
gnut hickory ( <u>Carya glabra</u> )	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-May	NE, MA, SE, FL, MS, MRV, SP, MP	То 23 ш	Deciduous, open crown, full sun	Prefers drier soils than other hickories
dbay ( <u>Persea borbonia</u> )	Transplants	Oct-March	B&B or potted in nursery	Feb-May	MA, FL, SE, MS, SP	To 18 m	Evergreen, upright branches, full or par- tial sun	Often occurs in dense woods, prefers moist soils
(Acer rubrum)1,3	Transplants	Sept-March	B&B or potted in nursery	Feb-June	Entire eastern U.S.	То 25 ш	Deciduous, upright branches, full or par- tial sun	Prefers moist soils, widely used as an ornamental
d mulberry ( <u>Morus rubra</u> ) <sup>1,3</sup>	Transplants	Sept-March	B&B or potted in nursery	March⊸June	Entire eastern U. S.	То 22 ш	Deciduous, rounded dense crown, full or partial shade	Prefers moist, fertile soils, edible fruit
ver birch (Betulg nigra)1,3	Transplants	Sept-March	B&B or potted in nursery	Feb-June	MA, SE, MS, SP, MP, MRV	To 25 m	Deciduous, irregular, multistemmed, full or partial sun	Prefers moist soils, used as ornamental, common in South
(Sassafras albidum) <sup>1,3</sup>	Transplants	Oct-March	B&B or potted in nursery	Feb-May	NE, MA, SE, MS, SP, MP, NF, GL, MRV	To 27 m	Deciduous, spreading branches, full or par- tial sun	Prefers upland soils but occurs over wide range of soil conditions, forms dense thicket

Continue

Table 2 (Concluded)

(Alphabetized by Common Name)	Best Propagule Type	Collection Periods	Temporary Storage Requirements	Planting Periods	Range	Mature Height	Growth Habits	Remarks
Large Trecs (Continued)								
Slash pine (Pinus elliottii) <sup>1,3</sup>	Transplants, seedlings	Oct-March	B&B or potted in nursery	Feb-May	SE, FL, MS	То 30 ш	Narrowleaf evergreen, dense, rounded crown, full sum	Grows rapidly, commercial forest tree, occurs on coast
Southern red oak (Quercus falcata)	Transplants, seedlings	Oct-March	B&B or potted in nursery	Feb-May	MA, SE, MS, SP	To 25 m	Deciduous, rounded crown, full sun	Prefers poor upland soil, used as an ornamental
Sugarberry ( <u>Celtis</u> <u>laevigata</u> ) <sup>1,3</sup>	Transplants	Oct-March	B&B or potted in nursery	March-June	SE, FL, MS, SP, MP	To 12 m	Deciduous, spiny, irreg- ular crown, full sun	Prefers alkaline, well-drained soils
Sugar maple ( <u>Acer saccharum</u> ) <sup>1,3</sup>	Transplants	Sept-March	B&B or potted in nursery	March-June	GL, NE, MRV, NP, MP, MA	То 30 ш	Deciduous, rounded crown, full sum	Prefers moist soils, used for wood, furniture, as an ornamental, and for syrup
Sweetbay ( <u>Magnolia virginiana</u> ) <sup>1</sup>	Transplants	Oct-March	B&B or potted in nursery	Feb-May	MA, SE, FL,	То 18 ш	Evergreen, shrub in north, tree in south, full sun to partial shade	Prefers moist soils, deciduous in north
Sweetgum (Liquidambar styraciflua)	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-June	MA, SE, FL, MS, SP, MRV	То 37 m	Deciduous, spreading crown, fast growing, full sun	Prefers well-drained soil tolerates many soil con- ditions, used for furniture
Tulip poplar ( <u>Liriodendron</u> tulipiferg) <sup>1,3</sup>	Transplants	Sept-March	B&B or potted in nursery	Feb-June	NE, MA, SE, MS, MRV, GL	To 46 m	Deciduous, fast growing, full sum	Prefers moist soil
Water oak (Quercus <u>nigra</u> ),3	Transplants, seedlings	Oct-March	B&B or potted in nursery	Feb-May	SE, MA, FL, MS, SP	To 21 m	Deciduous, rounded crown, full sun	Frefers moist soil, fast- growing, produces abun- dant, small, bitter acorns
White ash (Fraxinus americana) 1,3	Transplants	Sept-March	B&B or potted in nursery	March-June	Eastern and mid-U. S.	To 24 m	Deciduous, upright crown, full sum	Prefers upland well- drained areas, fast- growing
White cak (Que <u>rcus alba</u> ) <sup>3</sup>	Transplants, seedlings	Sept-March	B&B or potted in nursery	Feb-June	NE, MA, SE, NS, GL, MRV, SP, MP, NP	То 30 в	Deciduous, spreading rounded crown, full sun	Tolerates wide range of soil and climatic con- ditions, edible acorns
White poplar ( <u>Populus alba</u> )	Transplants, cuttings	Sept-March	B&B or potted in nursery	Feb-June	Entire U. S.	To 24 m	Deciduous, multi-trunked, full sun	Fast-growing, exotic, naturalized over much of U. S.

(Sheet 1 of 11)

Table 3 Matrix of Upland Plant Species\*

	Region**			S	oil Conditi					Wild	Wildlife Value	e		Soil
	H H H H H H H H H H H H H H H H H H H	Hd	ŀ		Salinity		Moisture	1	Texture		Neg	/gu	Esthetics	and Other
Common Name	IN I		Alkaline	Fresh B	rackish Sa		Woist	Žį.	ine Coarse	F00d	Cover		Value	Soil Benefits
Oracses		`	`		`	`		>	`		`	`		,
Amer 10an Denting ass			-	,	. `		`	. ,	. >		. ,	. `		`
American conegrass	•	,		. `			. `		. `		. `			`*
Bahia grass		`					`					ç		`*
Barley		`		`			`		`	`	`	٠.		`*
Bernyard grass		`		`*			`			`	`	٠.		
Beach panic grass	, , ,	`	`		`	`	>	`	`~		`	`		`
Beaked panic grass		`	`		`		`		,	`~	`	•		
Big bluestem	1 1111 111111	`			`		`	`	•	`	`			
Bronegrass			`	`			`*	`	`	`	`			
Broomsedge		`		`			`	`	,		`~	` `		
Browntop millet		`		`		`	`		~	`	`			,
Bull paspalum	, , ,	`		`			`		<i>*</i>	`	`			•
Bushy beardgrass			`~	`			`		,		`*			
Calley Bermuda grass	, , , , , , , , , , , , , , , , , , , ,	`		`			`		` '	`	`			`
Coastal Bermuda grass	<i>+ + + + + + + + + + + + + + + + + + + </i>	`	`~	`	`*	`	`	`	,	`~	`			. `>
Common Bermuda grass		`	`	`		`	`	`	`	`	`	6.	`	`
Common reed		•	`	`	`	`			`		`	,		• `
Corn		`		`			`			`.	`			. `
Dallis grass		`		``			`		,	`	`	٠.		`
Deertongue	, ,,,,,,	` <b>`</b>		`.			`		,		`			
European benchgrass	`				`	`	`	`	`*		`	`		`
Fall panic grass	11111 11 1111	,	`*	`*	`	`	`		` '		`	`		
Foxtail millet	** *****	`		`			`*		٠,	`	`	6.		`*
Goose grass	1111 11 11 1111	`	`	`		`	`		,	`	`			
Green bristle grass	****	<i>,</i>	`*	`*		`	`	`	,		`			`
Italian ryegrass		`	`	`		`	`		,	`~	`	6-1	>	`
Japanese millet	1111 11111111	`	`*	`~	`~	`	`		_	`	`			. ``
Johnson grass		`	`	`		`	`		,	`	`	٠.		`
Jungle rice	111111111111	`	`	`		`*	`*		`^	`	`			
Large crabgrass	++++++++	,	`*	`		`	`	>	` '	`	`			
Little hairgrass		`	`	`	`		`	`*	<b>~</b>		`			
Oats	11111111111111	`	<i>'</i>	`		`*	`	`>	,	`.	`			`
Orchardgrass	****	`	`	`^		7	`*	`	,	`~	`	٥.		`*
Panic grass		`	`*	`			`		`	٠.	`			`>
		,	0)	(Continued)	a)									
2 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	C - 17-E 777													

\* Table is coordinated with Table 2.

\*\* SE = southeast; MS = midsouth; SP = south plains; MP = mid plains; NP = north plains; NB = northeast; MA = mid Atlantic; PNW = northeast; SW = southwest; FL = Florida; GL = Great Lakes; MRO = Mississippi River Valley; CA = California; NW = Midwest.

		Region**				 		vs.	Soil Conditions	ions					Wildlife Value	Value		Soil Stabilization
Common Name	NLS NLS NLS NLS NLS	AM Prim Prim Prim Prim Prim Prim Prim Prim	MBA GF LF	WM CA	Acid Ne	Neutral Al	Alkaline	Fresh B	Salinity Brackish S	Saline	Wet Moist	t Dry	Texture Fine Coarse	Food	Cover	Nesting/ Breeding	Esthetics Value	and Other Soil Benefits
Grasses (Continued)	 	) 	 	ı														
Pearl millet	, ,	`	,		~	`~	`	`*			`	`	,	`*	`			
Perennial ryegrass	111		`~		`*	`~	`	`			` <b>,</b>		,	`	`	٠.		`
Prairie cordgrass	1 1 1	, , ,	, ,	`	`	`		`	`		`~		`^	`	`	c		`*
Proso millet	`~			`	`	`	`	>			`	>	`* `*	`	`			`*
Quackgrass	1111	, , ,		<i>&gt;</i>	-,	`	`	`•			,	`*	,		`~			
Red fescue	,	, , ,	, ,	<i>&gt;</i>	`	`	`	`,			`		,	`	`	٠٠	`	`
Redtop	1111	* * * *	* * * * /	,	`,	`.	`	`*			<i>,</i>		,	`	`	٠.	`*	`~
Reed canary grass	1111	1 1 1	, , , ,	<i>*</i>	٠,	`	`	`			` `		,	`	`	`~	`	`
Rescue grass	` ` `	•		`	`~	`		`*			`		`	`	`			`
Rice cutgrass	1111	, , ,		<b>,</b>	`*	`	`	`~			`		`*	`	`	`*		`
Rye	1111	, , , ,		` '	`	`	`	`~			`		,	`	`		`	`
Saltgrass	1111	, , ,	111	`	`	`,	`*		`	`	`*		,	`	`	`		`
Saltmeadow cordgrass	, , ,	<i>&gt; &gt;</i>	`		`	`	`		`*		<i>,</i>		, ,	`	`	`		<b>,</b>
Sand dropseed	1111	, , ,	1 1 1	<i>&gt;</i>	`~	`	`*	`			`	`*	`*	¢.	`			`
Sea oats	` `	`	`		`>	`	`		`	`	`	`~	`*	`	`	`	`*	`
Seashore bluegrass		`		`	`,	`	`		`		`	`*	**		`		`	`
Seashore paspalum	<i>,</i>		`		٠,	`	`		`	`	`~		`*	٠.	`	`		`
Shoredune panic grass	` ` `	1	`		~	`	`		`		`	`	*	٠.	`	`		`
Sixweeks fescue	, , , ,	, , ,	111	, ,	٠,	`	`	`			`		` <u>,</u>	`	`			`
Smooth crabgrass	1 1 1 1 1	1 1 1	1 1 1	` ` `	``	`	`*	`			<b>,</b>	`	`^ `^	e+	`			
Sorghum	1111	, , , ,	111	` '	`	`	`	`~			`		,	`	`*			`*
Sudan grass	111	`	1 / / /	<u>,</u>	-	`	`.	`			`		,	`	`	٠.		`
Switchgrass	<i>,</i> , , ,	, ,	111	`	٠,	`	`	`*	`*		,		`* `*	`	`	c-+		`*
Tall fescue	, ,	<i>,</i> ,	` <u>`</u>		`*	· ·	`	`			`		, ,	`	`	`*		`*
Texas millet	, , ,	`~	`		``	`	`	`~			`		`^ `^	`	`			`
Timothy	, ,	, , ,	, ,	,		`*	`*	`*			`		,	`	`	٥.	`*	`
Torpedo grass	` <b>,</b>		`~		`*	<b>,</b>	<b>,</b>	`*	<b>,</b>		`~		,	`	<b>&gt;</b>			`*
Vasey grass	<i>,</i> , ,	`*	`*	`	٠,	`*	`	`			,		, ,	`	`*			`
Virginia dropseed	`*	,	`*		`,	`	`	`.	`~	`	,	`	`*		`	٠.		`
Walter's millet	, , ,	<i>,</i> ,	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `		٠,	`	`	`•			`*		`^	`	`			`
Wheat	1111	, , , ,	111	<i>'</i>	`*	`*	`*	`*			`	`*	,	`*	`			`
Wild rye	1111	* * * *	111	`*	``	`~	`	`	`~		`		,	`	`			`
Woolly panic grass	· · · · · · · · · · · · · · · · · · ·	` .	, ,	•	· ·	` ·	` `	`• '			` `	`	, ,		` `			
Yellow bristlegrass	, , ,	`	```	`	`~	`	`	`•			`	`	•		`	٠.		`

Table 3 (Continued)

	Region**			200	SOLI COMPLETONS		1			7	10, 2111	1		
	E L L L L L L L L L L L L L L L L L L L	Hd	A 33.00 J Co. C.	Sal:	Salinity Prestich Seline	Moisture	Ę	Fine Coarse		Food	Ne over Br	Nesting/	Esthetics Value	and Other
Common Name	SI TI	Acid Neutrel	Alkaline			120	1			1		d		2011
Herbs		`	`	,		`		`	`,	`	`	•		`
Alfalfa			•			. `	`	. ~			,		`	. ~
Alsike clover		•		`*		` `	•		,		. 、	٠.		• `
Arrow-leaf tearthumb		•	`	`		•		`	•					`
Веясь пея		,	`~	`	`	`			`•	2	`	٥.		`
Beach strawberry	<i>* * *</i>	,		`	`	`			`*	`	`			
Big filores		*	`*	`~		`		`	`*		`			
aagari Sig		. `	,	`		`		`	`	۰	`			
Bird's foot trefoil	`* `*		<b>.</b>			• `		. `	. `	. ,				
Bittersweet nightshade	<i>, , ,</i>	,		`		`		`	•					,
Black medic	* * * * * * * * * * * * * * * * * * * *	`^	`	`		`	`	`	`		`		`	`,
Black nightshade		<i>,</i>	`	`*		`*		`	`~	`				
Blackseed plantain		•	`	`*		`		`	`•	`	`			
Bottlebrush		,	`~	`*			`	`	`~		•			
Bracted plantain		,	`	`		*		`	`~		`			
Broadleaf plantain		<i>,</i>	`~	`~		`		`	`~		`			
Buckthorn plantain		,	`	`		•		`~	`~		`			
Bush lupine	,	`	`	`*			`	`~	`~	<b>6</b> ~1	`	•		`
Calandrinia	`	`	`	`*	`		`		`~		`			`
Camphorweed		,	`	`			`		`~		`	`		`
Chufa		,		`		`		`		`	`	••		`*
Coast deervetch	,	`	`	`			`	`~	`	`	`~	e		`
Common chickweed		,	`*	`		`	`	`	`		`			`
Common filaree		,	`	`		`	`	`	`-		`	٠.		
Common lambsquarters	****	<i>,</i>	`~	`*		•	`	`	`~		` '	`		`
Common mullein	1111111111111	<i>,</i>	`*	`			`	٠.	` '		` `	¢		` '
Common purslane	///////////////////////////////////////	,	`*	`			`	٠.	`		`			`
Common ragweed	****	,	`*	`	`	`*	`*	`•	`		` .	`		`
Common spikerush	* * * * * * * * * * * * * * * *	,		`*		`` ``		`	`		` '			`
Common threesquare	11111 1111111	<b>,</b>		`	`	,		`	`		` .	`		`
Cow pea	* * * * * * * * * * * * * * * *	<i>*</i>	`~	`		`		`	`~	`	` .	٠,		`
Crimson clover	****	,	`	`		`*		`	`~		`	٠-	`	`
Croton	,	`	`~	`		`	`	`~	`	`	`			`*
Curley dock	****	,	`	`		•		`~	`	٠.				`
Deerweed	•	`	`*	`			`	`	`	٠				`
Dwarf spikerush	11111 1111111	<i>,</i>	`*	`*	`	•		`	`~					`

Table 3 (Continued)

	Region**				Soil (	onditions					- 1	llife Va			Soil Stabilization
Common Tame	WW WEY WAY WAY WAY WAY WAY WAY WAY WAY WAY WA	Acid Neu	PH Neutral Alka	Alkaline Fr	Fresh Bracki	Salinity Brackish Saline		Wet Moist Dry		Tine Coarse	Œ,	over	Nesting/	Esthetics Value	and Other Soil Benefits
Serbs (Continued)															
Flat pea		`	`		_			`	`	`	٠.	`			`
Flowering spurge		`	`		_				<b>,</b>	`		`			`
Giant ragweed	1 1111 11111	`	`		`			`	<b>,</b>	`	`	`	۴-		`
Goosefoot	****	`	`		_			`	·*	`		`			
Hardstem bulrush	****	`	`		,		`	<u>,</u>	`*	`	`	`	6-1		`
Hairy vetch	****	`	`					`	<i>&gt;</i>	`	•	`			`
Hemp sesbania		``	`		_			`~	`	`		`~			`
Hop clover	****	`	`		_			, ·	`	`		`			`
Horse nettle		`	`		•			·.	` `*	`	`				
Horseweed	****	`	`		`			`	` `	`		`	`		`
Japanese clover		`*	`		`			`	,	`	`	`	٠٠		`
Jerusalem artichoke		`	`		`			`	`	`	`				
Korean clover	****	`	`		` .			`, `	``	<b>,</b> `	`	` '			`
Ladino clover	111111111111	`	`		`			× '	•	•	`	`			`
Ladysthumb	****	`	`		`		`~	· .	`	`	`	`			
Lespedeza		`	`		`			`	<b>)</b>	`~	`	`	`		`
Lupine	, , ,		`		`				,	`*		`	3		`
Malta starthistle	****	`	`		`			`	`	`*	٠.	`			
Mapleleaf goosefoot	1 1111 11111	`	`		`			`	` `~	`		`			
Marsh pea	****	`	`		`		`	`	`	`	`	`	`		`
Marsh pepper		`	`		`		`	`	`	`*	`	`	٥.		
Maxamillian's sunflower		`	`		`			`	`	`*		`	<b>6-</b> -	`	`
Mexican tea	****	`	`		`			`	`	`	٠.	` '	`		
Musk filaree	•	`	•		`				`^ `~	`		•			
Narrowleaf vetch	1111111111111	`	`		`			`	`	`	`	`			`*
Nodding smartweed	***	`	`		`		`	`	`	`*	`	`	`		`
Nutsedge	, , ,	`	•		`				`	`	٠.	` .	•		
Olney threesquare		`~	•		,	`		`	`	`	`	•	`		`
Orache		`.	`		`	`		`	`	`	٠. `	` .			
Patridge pea		`	`		`			`	<b>,</b>	`	`	`		`	`
Pennsylvania smartweed		`	`		`		`~	`	•	`	`~	`	`		
Pickleweed	, , ,	`	•		`*		`		`	`	,	`			
Pokeberry		`	`		`			`	•	`*	`	`			
Prostrate knotweed	****	`~	`		`			`	`	`*		` .			`
Prostrate pigweed	* * * * * * * * * * * * * * * * * * * *	`~	`		`*			`	`	`*		<b>,</b> ,			

15   15   15   15   15   15   15   15	main black				ł	Reg	Region**									Soil Cond	- 1	ľ				ł	Wildlife Value	Value	;	Soil Stabilization
Tool Tool Tool Tool Tool Tool Tool Tool	To the contract of the contrac	Common Name					MN4					Acid	Neutral	Alkaline	Fresh	Brackish		Wet	ist Dry		exture c Coarse		Cover	Breeding	Value	Soil Benefits
a signate	a sequence	erbs (Continued)					ı																			
active ac	### ### ### ### ### ### ### ### ### ##	Prostrate spurge	`	` `	`	<i>`</i>	`	`	`	,	`	`	`	,	`*				`	`	`		`			
### ### ##############################	### ### ##############################	Purple nutsedge	,	<i>&gt;</i>	`	<i>&gt;</i>	`	,	`	,	`	`	_	`•	`			`	,	`	`		`			
Full continued	### ### #### #########################	Purple vetch	<b>&gt;</b>	` `	`	<i>&gt;</i>	`	`	`	,	`	`	`	<b>,</b>	`				`	`	`	`	`	`~	`	`
# Subjected	# compared	Red clover	,	<i>&gt;</i>	`	`	`	`	`	,	Ĺ	`	`	`*	`				`	`	`	>	`		`*	`
Funds  builtime	Face   Part	Redroot pigweed	`	<i>*</i>	`	` <u> </u>	`	•	`	,	`	`	`	`*	`				`		`	٠	`			`
Particular	Institute	Reseeding soybean	,									`	`	`*	`~				`	`	`	`	`			
b ball-mith  by the control of the c	b ball-rubh  by Continued  c c c c c c c c c c c c c c c c c c c	River bulrush	`			` <b>`</b>				`		`	`	`*	`			`	`	`	`	`~	`	`~		
### 1	### 1	Saltmarsh bulrush	`	`			`			•		`	`		`	`	`	`	`	`	`	`	`	٠		`
book book book book book book book book	19th	Saltwort	`			,		`				`	`	`*	`	`			`	`	`		`			`
Displace	Dugues  Output  Dugues  Output  Dugues  Output  Output	Sea blite	`*	`		` <u> </u>	`	,		`	`	`	`	`*		`	`	`	`	`	`		`	٠.		`
State	State	Sea ox-eye	,	`		`		`				`	`	`•		`	`	`	`	`	`		`	`		`
Dock	Deck	Seashore lupine					`			`	_	`	`	,,	`	`~		`	,	`	`	٠.	`			`
### ##################################	poldented	Seaside dock		<b>&gt;</b>	`	`	`	`	`	,	`	`	`	`•	`	`*			`	6+	`	`	`			
plantin	Separation	Seaside goldenrod	<i>&gt;</i>	`		`		`				`	`	`•	`	`~			,	`	`		`	`		
Treat	Leagedta	Seaside plantain	,	`		` <u>`</u>	`	`		`		`	`	`.	`	`	`	`	`	`	`*		`			
techtrecial (	tection	Sericea lespedza	,	<i>&gt;</i>		`		`		`		`	`	`•	`				`	`	`	`	`	٠.	`	`
Ide-trefoil	tick-trefoil	Sheep sorrel	,	` `	`	<i>'</i>	`	`	`	`	`	`			`*				`	`	`		`			`
bull-ush	bull-unh	Showy tick-trefoil	<i>&gt;</i>		`	`		`	`	`		`	`	`*	`				`	`	`	`	`			
bull-tash  rage-ed  //////////////////////////////////	bull-ush  ragered  /// / / / / / / / / / / / / / / / / /	Silverleaf croton	` <b>,</b>					`				`	`	`*	`	`			,	`	`	`	`~			
ragued	rageed	Southern bulrush	`					`		•	_	`	`		`	`		`	`	`	`	`	`	۰.		`*
burclover	burclover	Southern ragweed	,	`								`	`	`*	`				,	`	`		`	ę.		
(continued)	Continued)	Soybean	` <b>,</b>	<i>&gt;</i>	`	<i>`</i>	`	<i>&gt;</i>	`	, ,	`	`	`	`*	`				`	`	`	`	>			`*
(continued)	Continued)	Spotted burclover	` <b>,</b>	<i>&gt;</i>	`	<i>`</i>	`	<i>`</i>	>	,	`	`	`	`*	`				<i>&gt; &gt;</i>	`	`		`			`
(Continued)	Continued)	Spotted spurge	,	` `	`	` `~	`	<i>'</i>	`	`	`	`	`	<b>,</b>	`*				`	`	`		`			
(Continued)	Continued)	Squarestem spikerush	`	<i>&gt;</i>	`	<i>`</i>	`	` <u>`</u>	`	` <u> </u>	>	`	`	`•	`			`	`	`	`	`	`			
(Continued)	Continued)	Sunflower	,	<i>'</i>	`	<i>`</i>		`	`	_		`	`	`*	`				`*	`	`		`		`*	
	Treed (Continued)	Schweinitz's nutsedge		`	`	`			`	`		`	`	`*	`			`	`	`	`	`~	`			
		Tansy mustard	`^	<i>&gt;</i>	`	<i>&gt;</i>	`	`	`	,	`	`	`	`*	`				,	`	`		`	`~		
		Tropic croton	` <b>,</b>	`		`		`		`		`	`	٠,	`				`	`	`	`	`			
/ / / / / / / / / / / / / / / / / / /	(Continued)	Tumbleweed	` <b>,</b>	<i>&gt;</i>	`	<i>&gt;</i>	`	,	`	`	`~	`	`	`*	`				,	`	`		`			
/ / / / / / / / / / / / / / / / / / /	(Continued)	Virginia pepperweed	,	,	`	<i>&gt;</i>		,	`	`	`	`	`	`>	`				,	`	`		`	`*		
/ / / / / / / / / / / / / / / / / / /	/ / / / / / / / / / / / / / / / / / /	Western ragweed		<i>`</i>	`	`		`	`	`	`	`	`	`>	`~				,	`	`		`	٠.		
(Continued)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	White clover	,	` `	`	<i>&gt;</i>	`~	`	`	,		`	`	`*	`				`	`	`	`	`*	٥٠	`	`*
/ / / / / / / / / / / / / / / / / / /	/ / / / / / / / / / / / / / / / / / /	White sweetclover	`	` <b>,</b>	`	`	`	<i>'</i>	`	<i>`</i>	`	`	`	`*	`				`	`	`	`	`	۰۰		
//////////////////////////////////////	(Continued)	Wild bean	,	` `	`	`		`	`	_		٦,	<b>\</b>	`*	`	`.			,	`	`		`~			`
		Wild buckwheat	` <b>,</b>	` <u>`</u>	`	<i>&gt;</i>	`	<i>&gt;</i>	`	`		`	`	`*	`				`	`	`		`			
															(Contin	ued)										

Table 3 (Continued)

		B	Region**		,	:				01	Soil Condi	tions					Wil	Wildlife Value			Soil Stabilization
Common Name	Mb Sb Sw SE	dN	MM WING	CF LF RM	MZRV CA	MW	Acid Ner	PH Neutral Al	Alkaline	Fresh	Salinity Brackish Saline	Saline	Moisture Wet Moist	ure st Dry		Texture Fine Coarse	Food	Cover	'gu' Jing	Esthetics Value	and Other Soil Benefits
Herbs (Continued)	l I	J	1	ŀ	l	ı															
Wild sensitive pea	, , ,	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	<i>&gt;</i>	` ` `	,			`	`	`			•	`	`	`	`	`		`	`~
Wild strawberry	, , ,	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	`	`	`		_	`	`				`	`	`~	`	`				
Woolly croton	1 1 1		`		`		_	`	`	`			•		`~	`*	`	`	٠.		
Woolly indianwheat	`	`~				`		`	`	`				•	`	`		`			
Yellow starthistle			<i>'</i>		` `	`	_	`	`	`			•		`*	`	`-	`			
Yellow sweetclover	<i>&gt; &gt;</i>	`~	`	`	`			`	`	`			•	`	`	`	`-				`
Vines																					
American bittersweet	`	`*	`	,	`	`	_	`	`	`			•		`*	`~	`•				
Bamboo vine	<i>&gt; &gt; &gt; &gt;</i>		`~	`			_	`	`	`			•		`	`	`,				
Beach morning glory	1 1 1	`	. `*	`	`			`	`		`>	`		`		`*		`.		`	`
Common greenbrier	, , ,	`	`_	`	`		_	`	`	`			`	`	`*	`	`*	`			
Crossvine	<i>} ,</i>			`	`*		_	`	`	`			`		`	`		`			
Foxgrape	`	`	`		`		_	`	`	`~			•		`	`	`,	`			
Fringed cathrier	, , ,	<i>* * * *</i>	`	`	`		_	`	`	`^			•		`	`		`			
Frost grape	`	`	`			`	_	`	`	`			•		`	`	`*	`~			`*
Japanese honeysuckle	, , ,	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	` <u>`</u>	` <b>,</b> ,	,	`	_	`	`~	`			•		`	`	`•	`			`
Kudzu	* * * *	` * .	<u>,</u>	` `	, ,	`	_	`	`	`			•		`	`	`>	`.			`
Lanceleaf greenbrier	1 1 1			`			_	`	`	`			•	`	`*	`		`			
Muscadine grape	<i>, , , ,</i>		`	`			_	`	`	`			•		`*		٠,	`			
Peppervine	* * * *	,	` '	,	,	`	_	`	`	`			•	`	`	`		`			
Savbrier	1 1 1	` `		`	` `			`	`,	`			•	`		`		`			
Summer grape	, ,			`			_	`	`	`			•	`	`	`~	`*	`			
Supple jack	1 1 1			`~			_	`	`	`~			,		`	`		`*			
Virginia creeper	, ,	11	`		`		_	`	`	`~			•	•	`	`		`			
Wild bamboo	<i>'</i> '			`			_	`	`	`			•		`*	`*		`			
Shrubs and Small Trees																					
American elderberry	* * * *	1 1	`	`	`		_	`	`	`			`	`	`	`	`	`*	٠.	`	
American hornbeam	* * * *	1 1	`*	`	<b>,</b>		_	`	`	`•			•	`	`	`	¢+	^	٥.		
American plum	, , ,	,	`	`	` `		_	`	`	`			•	`	`	`	`*	`		`	
Arrowwood viburnum	, ,						_	`	`	`.			•		`	`	`	`.			
Autumn olive	1 1 1		`	`~			_	`	`	`~	`>		`	•	`	`	`	`~	`	`	`*
Bayberry		`	`~				_	`	`	`	``*		•	>	٥.	`		`~	`	`	`
Beach plum		`	`				_	`	`	`	`>		•	`	٠.	`	`•	`			`*
Bearberry		1	<i>&gt;</i>	•	, ,	`	_	`	`	`				`	ě.	`	`~	`			`
Beautyberry	, ,		`	`~			_	`	`	`			•		`	`	`~	`		`~	
Bicolor lespedeza	, ,		`	`			_	`	`	`			•	`	`*	`	`	`			`
									٣	(Continued)	( pa										
																				9	heet b of 11)

(Sheet 6 of 11)

	Region**	***						ĺ										
Common Name	IME IME IME	IGF IEF IEM IEM	IMBA	Acid	Neutral	Alkaline	Fresh	Salinity Brackish Saline		Moisture Wet Moist	st Dry	Fine	Texture Fine Coarse	Food	Cover	Nesting/ Breeding	Esthetics	Soil Benefits
Shrubs and																		
Dien membern				`*	`*	`	>			•		`~	`*	`~	`*	٠.		
pracy raspucity		`	`	- >	٠,	`*	`				`*		`^	`	`			
Blue brush		, ,	. >	. ¬	. >	. >	`			•		`	`	`	`			
Blue elderberry			•	. ~		. >	. >	,		`	`*	`	`		`	`	`	`
Brazilian peppertree		>	,	. `	• `	• >	•	. >	`		. `	. >	,		`			. >
Brewer saltbrush			`	`	•	>		•			•							•
Buffaloberry	<i>* * *</i>	,		`*	`>	`>	`				_	`~	`*	`	`	۰۰		`
Bush lupine		,	`~	`*	`*	`*	`				,	`~	`*		`~	٠.		`*
California blackberry		`	/*	`	`*	`>	`			-	``	`	`	`	`	e		`*
California buckthorn		,	`>	`~	`*	`>	`				`	`~	`*		`			`
Canadian serviceberry	* *			`	`*	`>	`				`	`~	`*	`~	`	٥.		
Caroline ash	1 111	`		`	`.	`>	. ``			`.		`	`	`~	`	ė.	`	`
Carolina rose	* * * * * * * *	1	`	`	`.	->	`				`	`	`		`	`~	`	`
Caccara buckthorn	-	`~	`	`	`*	->	`					`~	`*		`	٠.		
Chorne Toursel	,			`~	٠,	`~	`			-	_	`	`		`*	٠.	`	
Chicksaw plum	, , ,			`	,	`~	`*			-	`	`	`	`	`	`*	`	`
Common buckthorn	* * *	`		`	`,	٠,	`					`	`		`~			
Common chokecherry	``	* * *	1 1 1	`	`-	`>	`	`		Ī	,	`	`		`~	٠.		`*
Common deerhorm		1	`	`	`~	~	>				`	`	`*	`	`			
Common dissipation	•	1			<b>,</b>	٠,	`					`	`		`*	`	`*	`
Common sweetleaf	` ` `			`	`*	`>	`*			Ī		`	`	`	`.			
Crahennle	•	`		`	`•	`>	`~			Ī	_	`	`	`*	`	`	`*	
Dahoon	. >	. `>		. `>	`,	`*	`*	`		-	,		`		`~	`	`*	
Downy serviceberry	<i>*</i> *			`^	<i>\</i> *	`>	`*				`*	`	`	`	`			
Eastern hophornbeam	11111	<i>&gt;</i>	`	`	`	`~	`				<b>,</b>	`	`		`	`		
Elderberry (glauca)		, ,	<b>,</b>	`	`•	`~	`				`*	`*	`	`	`			
Elderberry (callicarpa)		`	`	`	<i>,</i>	`>	`				`	`	`	` .	`			
Evergreen blackberry	11	` <b>,</b>	`*	`	`~	`*	`*					`	`	`	`	`~		`
Firethorn	1 11	`~		`~	,	`~	`			`	`	`	`	` .	` .	`	`*	`
Flowering dogwood	111111	<i>, ,</i>	`*	`*	`		`*			-	`	`	`	>	` .		`	
Gallberry	<i>,</i> , , , , , , , , , , , , , , , , , ,	`		`	`	``>	`				`	`	`		`			
Gray dogwood	1111111	<i>&gt;</i>	`	`	`		`~					`*	`	`	`~			
Ground blueberry	1 1			`~	`~	`->	`			-		`	`	`~	`			
Groundsel tree	111 111			`,	`,	`*	`*	`	`.	-	,	`	`		`	`		`*
Halberd-leaved willow	111111	1111	11.	`*	`	``*	`*					`	`		`	`	`*	
	' ' ' ' '																	

	Region**	1**					0.2	Soil Condition					1	ldlife V	alue		Soil Stabilization
Common Name	IME IMB IMB IMB IMB IMB IMB	GE LEF BEN BENN BENN	MBV MW	Acid	Neutral	Alkaline	Fresh	Salinity Brackish Saline		Wet Moist Dry		Texture Fine Coarse	Ē.	Cover	Nesting/	Value	Soil Benefits
Shrubs and Small Trees (Continued)																	
Highland blueberry	11	`		`	`		`~			`		,	`	`			
Hollyleaf cherry			`	`	`	`~	`				`	`		`			`
Honey mesquite	,	`		`	`	`	`	`			`	<b>&gt;</b>		`	`		` '
Hooker's willow		_	`~	`	`	`~	`		`	`		•		`	۰.		`
Japanese lespedeza		111	<i>,</i> , ,	`~	`	`	`.			`		<b>,</b>	`~	`		`	`
Low blueberry	,			`~	`		`~			`		`*	`	`			
Mapleleaf viburnum	,			``	`	`	`			`*		<b>,</b>	`	`	٠.		
Marsh elder	11 11	`~		`	`	`	`	`~	`	`		`		`	`*		`
Mountain blackberry	, ,	`	`	`	`	`	`			`*		`	`	`	`*		`
Multiflora rose	11111	1111	<i>, , ,</i>	`~	`	`	`~			`		•	`*	`	`	`~	`
Myrtle oak		`~		`	`	`	`~	`		`		`	e	`	`	`	
Northern bayberry	, ,			`	`	`	`	`		`		`*		`	`	`~	`
Oleander	`*	<i>&gt; &gt;</i>		`	`	`	`~	`*		`*	`	`		`	`	`~	`
Pacific bayberry		_	`	`	`	`	`	`~		`*	`	`		`	ç		
Pacific dogwood			`	`	`		`*			`		<b>,</b>	`~	`			
Pacific wax myrtle		_	`	`	`	`	`~	`*		`*		<b>,</b>		`			`
Pacific willow	-	_	`~	`	`		`		`	`~		•		`	`		`*
Poison ivy	1111111	111	/ / /	`	`	`	`			`*		,	`	`	`		
Possumhaw	1 111	,	`	`	`	`*	`			`		`	`	`	`*	`~	
Possumhaw viburnum	,	`		`	`	`	`			`		`		`	٠٠		
Purple osier willow	* *		`	`	`	`	`		•	`		`		`		`*	`
Pussy willow	, ,	`		`	`	`	`~		`	`		•	`	`	6.	`*	`
Quail brush		`~		`	`	`	`~	`*			`	`		`	`		`
Red alder			`*	`~	`	`	`~			`		`		` '	e- '		`
Red buckeye	, , ,			`	`*	`	`~			`		`	`	`	`		
Red osier dogwood	, ,	, , ,	`	`	`	`	`~		•	`		`	`	`	`	`*	`
Riverflat hawthorn	, , ,			`	`	`	`			`	`~	`	`	`	٠.		<b>,</b>
Rough-leafed dogwood	1 1111			`	`	`	`		`	`		<b>,</b>	`	`	`	` '	`
Russian olive		, , ,	<i>, , ,</i>	`	`	`	`			`*	`	<b>,</b>		` '	`	`*	`
Rusty blackhaw	,	`*		`^	`.	`	`~			`	`	`	`	`			
Salal			`	`	`		`			`		`		`~	٥.	` '	
Salmonberry		_		`	`	`	`~			`*		` <b>,</b>	`	``		`	`
Saltbush			`	`	`	` '	`	`			•	•		`	,		•
Saltredar	* · · · · · · · · · · · · · · · · · · ·	`	· ·	` .	` `	``	` .	`		``	`	<b>,</b> .		` `	• •	`	` `
Sandbar willow	,	`	`	`	`	`	`		`	`		`		`	•		•

(Sheet 8 of 11)

			"	Region**								Soil Conditions	itions					Wilk	Wildlife Value	1	[	Soil Stabilization
Common Name	WE SE	qs qm	NE Nb	AM WN9	E.F RS	MEA CI	AD WM	Acid		PH Neutral Alkaline	Fresh	Salinity Brackish	Saline	Moisture Wet Moist	ure st Dry		Texture Fine Coarse	Food	Cover	Nesting/ Breeding	Esthetics Value	and Other Soil Benefits
Shrubs and Small Trees (Continued)	I	I		l	l	i	I															
Sand blackberry	`			`~	`			`	`	`	``				`		`~	`	`	0-1		`*
Sand pine	`				`*			`	`	`	`	,		`*	`		`*		`	0-4		`*
Sawtooth oak	,	`			`*			`	`	`*	`			`*	`	`	`~	`	`	,		`>
Scotch broom				`				`	`	`	`			`		`	`		`	`^	^	`*
Sharp-tooth blackberry	<i>,</i> ,			`	`	`		`	`	`	`*			`*	•	`	`*	`~	`	`		`*
Shining sumsc	,	<i>&gt;</i>	,	`	`	<i>&gt; &gt;</i>		`	`	`	`			`*		`	`*	`	`.	٠,		`
Shore pine				`			`	`	`	`*	`*			`	`	`	`*		`	٥.		`*
Shrub verbena	<i>,</i>	`			`			`	`	`*	`*	`>		•		`*	`~		`	`*	`	`
Silky dogwood	` <u>`</u>	<i>'</i>	`^	`,	`*	<i>&gt;</i>		`	`		`			•		`	`	`	`			
Silky willow			`	`~		<i>'</i>		`	`	`	`*			,		`	`*		`~	`		`*
Sitka alder				`				`~	`	`	`			`		`	`*		`	`.		`*
Smooth summer	,	` <b>`</b>	,	<i>&gt;</i>	<i>'</i>	<i>&gt;</i>	,	`~	`	`*	`*			•		`	`	`	`~	٠٠		
Southern bayberry	<i>,</i>	`		`~	`			`	`*	`	`	`*		`*		`	>		`	`~		`~
Southern devberry	,	`			`			`	`	`	`			`		`	`*	`~	`	٠.		`
Sparkleberry	,	`		`*				`	`	`	`~				`	`	`	`~	`.			
Squaw huckleberry	,	` <b>,</b>	>	`~	`	1		`	`	`	`				`	`	`	`*	`~			
Staghorn sumac	,	` <b>`</b>	`*	`	`~	<i>&gt;</i>		`	`	`	`				`	`	`	`	`	٠.		`*
Summersweet	<i>&gt; &gt;</i>							`	`	`	`				`	`	`		`		`	
Swamp privet	` <u>`</u>							`	`*	`*	, >			`*		`		· 、	`~	`*		`
Swamp rose	` <b>,</b>			`				`*	`*	`*	`~			`*		`	`		`.		`~	
Tag alder	` *	`	`	`~		`		`*	`	`	`			`		`*	`		`~			`*
Tartatian honeysuckle	,	<i>&gt;</i>	<i>,</i>	<i>&gt;</i>	<i>*</i>	<b>,</b>	` `	`~	`	`*	`			`		`	`		`.		`~	`
Texas huisache	`	`			`			`*	`*	`~	`	`		`*	`		`*		`~	`~		`
Thorny eleagnus	,	<i>&gt;</i>	` `	<i>&gt; &gt;</i>	<i>'</i>	,	<i>&gt;</i>	`~	`*	`	`	`		`	`	`~	`~	`	`	`*	`	`*
Toothache tree	<b>,</b>	`			`			`~	`	`	`					`	`		`~	`~		
Turkey oak	` `				`			`*	`*		`			`	`		`~	`	`	٠.	`	`.
Wax myrtle	,	`		`	`			`~	`~		`	`		`	`	`	`~		`	`*		`
Western blackberry				`			`	`	`	`	`			`		`	`	`	`	۵.		`
Western chokeberry				`			`	`	`	`*	`			•		`	`*	`	`*	ç.		
Western dogwood				`			`	`~	`*	`*	`			`*	`	`	`		`.	٠.	``	
Western huckleberry				`			`~	`~	`	`~	`			`		`	`~	`	`			
Wild apple	1	<i>&gt;</i>	,	,	<i>&gt;</i>	` <u>`</u>	` `	`	`.	`~	`			`		`	`*	`	`	٥.	`	
Wild black current			•			`		`~	`	`	`			`		`	`	`~	`			
Wild cherry				`	`		`	`	`~		`			`		`	`*	`	`	٥.		
Wild indigo	, ,	`						*	`	`~	`	`*		`	`	`	`*		`	`*		
Wild rose	,	`		`	`			`*	`	`	`			`	`	`	`*	`~	`	`*	`~	`
											(Continued)	nued)									33	(Sheet 9 of 11)

Company Name   Comp	Shrubs and Small Trees (Continued) Wingscale Winterberry Witch hazel Yaupon Yellow paloverde Large Trees American beech American beech American becch Australian pine Black cherry Black cottonwood	SMI >>> >>>	AN   >	ILT I CM	ADI				resh B		Moistur Wet Moist	Ž	Texture	E.	Cover Br			and Other Soil Benefits
Cinciplicated	Shrubs and Small Trees (Continued) Wingscale Winterberry Witch hazel Yaupon Yellow paloverde  Large Trees American beech American sycamore Australian pine Black cherry Black cottonwood		`								1							
	Wingscale Vinterberry Witch hazel Yaupon Yellov paloverde  large Trees American beech American sycamore Autralian pine Hlack cherry Black cutonwood	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	`															
The state of the s	Winterberry Witch hazel Yaupon Yellow paloverde large Trees American beech American sycamore Autralian pine Black cherry Black cottonwood	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	`	`*	<i>&gt; &gt;</i>	`	`	`	`			`	`~	`~				`~
ormate  **The control of the plane of the pl	Witch hazel Yaupon Yellow paloverde large Trees American beech American sycamore Australian pine Black cherry Black cottonwood	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	` <b>'</b>			`	`	`	`		`		,	`*	`*			
the state of the s	Yaupon Yellow paloverde  large Trees American beech American sycamore Australian pine Black cherry Black cottonwood	· · · · · · · · · · · · · · · · · · ·		`*	`	`	`	`~	`,		`*		`^	`^	`			
### A Propose	Yellow paloverde  large Trees  American beech  American sycamore  Australian pine  Black cherry  Black cottonwood	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	`	`		`	`*	`*	`	`	`*	`	,		`.	`^	<u> </u>	
### ### ### ### ### ### ### ### ### ##	large Trees American beech American sycamore Australian pine Black cherry Black cottonwood	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		`	`	`	`	`	`,	`		`~	`~		`	٠.	`*	`~
and the state of t	American beech American sycamore Australian pine Black cherry Black cottonwood	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `																
A september of the first place o	American sycamore Australian pine Black cherry Black cottonwood Black gum	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	<i>'</i>	`	`	`	`	`	`_		<b>,</b>		<i>,</i>	`~	`	`	`	`
tian place  of controlled to the controlled to t	Australian pine Black cherry Black cottonwood Black gum	· ·	1 1 1	>	`~	`*	`*	`	`		<i>,</i>		,		`	`	`~	`~
teresty  determined  determined  counts  About  Abo	Black cherry Black cottonwood Black gum	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `		`	`	`	`*	`	`		`*		`*		`*	`	`*	`*
outcomed  in the control of the cont	Black cottonwood Black gum	· · · ·	<i>' ' '</i>	<i>'</i>		`*	`	`~	`~		`	`*	,	`~	`~	`*	<b>,</b>	
uncount,	Black gum	111		<i>,</i> ,	`*	`	`.	`	`		<i>,</i>		,		`*	`	`~	`
ocusts  interpretation of the control of the contro			1 1 1	<i>'</i>	`	`	`	`	`		`~	`	,		`*	`*		
Allow	Black locust	,	`			`~	`	`~	`,		`		,	`	`	`	`~	<b>&gt;</b>
13100	Black walnut	<i>,</i> , ,	<i>'</i>		`	`*	`~	`~	`		`		<i>,</i>	`~	`~	`	`*	
octonwood  **Test cedar**  red cedar**  red cedar*  **Test cedar**  **Test ced	Black willow	111	`	`*		`*	`*	`	`,		`		,	`~	`*	`		`
red cedar  red cedar  vite pine  red cedar  vite pine  vite pine  vite pine  vite pine  vite vite  vit	Cow oak	111	`*	`*		`	`	`~	`*		`		,	`*	`			
red cedar  white place  white place  white place  k  k  k  k  k  k  k  k  k  k  k  k  k	Eastern cottonwood	1111	<i>&gt; &gt;</i>	,	,	`~	`*	`	``^		,		•		`	`	`~	`
white pine  an  an  cutst  (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	Eastern red cedar	1 1 1			`	`	`	`*	`		`~		,	`*	`*	`*	`*	
esh	Eastern white pine		<i>,</i> ,	`*		`	`	`	`		`~		<i>*</i>	¢-+	`~	٠.		
ray  cust  (i)	Green ash	1 1 1	/ / /	` `	`	`	`	`	`		<i>,</i>		,		`	`*		•
ousk  k k  k k  k t  k t  k t  k t  k t  k	Hackberry	111			`	`	`	`	``		`*		`	`	`	`	`	
ook  k  t	Honeylocust	1111	`	`*	`	`	`	`	`*		`•		,	0-+	`	٠.	`	`*
k f	Laurel oak	1 1 1				`	`~	`	`		`*	`*	,		`	ç.,		
t pine  t pine  t pine  t	Live oak	111	`			`*	`	`	`,	`	`*		,	`	`	`	`*	
f pine	Loblolly pine	, , ,	`*			`^	`		`		<i>,</i>		`^	`*	`*	`*	•	•
ubberry  if	Longleaf pine	, ,	`	`		`	`		`~		`~		`^		`	`	`	`*
af villow	Mockernut hickory	111	<i>'</i>	`	`	`	`	`	`		`*	`*	,	`~	`	`		
af villow	Paper mulberry	<i>&gt; &gt;</i>	<i>&gt; &gt;</i>	1	`	`	`~	`~	`~		`*		, ,		`~	٥.	`*	
on	Peachleaf willow	,	`	`	`	`	`~	`~	`		<i>,</i>		,		`*	`~		`*
on	Pecan	111				`	`	`	`*		<b>→</b>		<i>,</i>	<b>&gt;</b>	`~	,	<i>,</i> *	
hickory (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Persimmon	111	`	`	`	`	`~	`~	`		`	`*	,	`	`	`	`	
14	Fignut hickory	1111	<i>'</i>	`~	`	`	`	`	>		`*	`•	,	`~	`*	`*	`*	
/	Redbay	, , ,	`	`~		`	`	`*	`		`*		,		`.			
/ / / / / / / / / / / / / / / / / / /	Red maple	<i>,</i> ,	<i>'</i>	,	`	`	`	`.	`,		,		,	`*	`*	`*	`	<b>&gt;</b>
//// / / / / / / / / / / / / / / / / /	Red mulberry	1 1	1 1	1	`~	`	`	`*	``		`	`	,	`~			`	
	River birch	111	`*		`	`	`	`*	`,		,		,		`~		`	`*
								)	ontinued	1)								

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Table 3 (Concluded)

	Region**						Soil Conditions	to					Wildli	Wildlife Value		Stabilization
	MJ	,		Hd			Salinity		Moisture	4	Texture				邱	and Other
Common Name	HWE	IMA IMB IMB IMB IMB IMB IMB	Acid	Neutral /	Alkaline	Fresh	Brackish Saline	ne Wet	Moist	ğ	Fine Co	Coarse	Food Cover	Preeding	Value	Soil Benefits
Large Trees (Continued)																
Sassafras	,,,,,,	<i>,</i> ,	`*	`*	`*	`			`*	`*	`*	`	`	`	`	`
Slash pine	` `	`~	`	`	`	`			`*		`	`,	,	`*	`	`*
Southern red oak	, , , ,		`	`	`	`			`*	`~	`	`	`	`~	`*	`
Sugarberry	1111	`	`	`	`*	`			`		`	`	`	`~	`	
Sugar maple	111	` `	`	`	`	`			`		`	`	`	`	`	
Sweetbay	,	`	`	`	`	`~			`		`	`	``			
Sweetrum	, ,,,	,	`	`	`*	`			`~	`	`	`	,	`*	`	
Tulia poplar	,,	, ,	,	`	`	`		•	`		`	`	•	`*	`	
Water oak	1 11	`	`	`*	`	`		`	`		`	`	<i>,</i>	`*	`*	`
White ash	* * * * * * * *	, , ,	`	`*	`	`			`	`	`	`	,	`		
White oak	* * * * * * * *	` `	`	`~	`	`			`	`~	`	`	` `	`	`	`
White poplar	****	11111	`~	`*	`	`			`		`	`	`	`	`	

## Table 4 Recommended Propagules and Techniques for Selected Marsh Species

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
Alkali bulrush	Transplants <sup>1</sup> , tubers	Dig plants; divide; replant on site at same depth or pot for holding in nursery or greenhouse.	Seeds frequently eaten by waterfowl and other birds; used for soil stabilization; prefers fine soils.
Arrow arum <sup>2</sup>	Transplants, seeds	Dig plants; separate; replant at same depth on the site or pot for holding. Gather seeds when mature; store in freshwater at $1-3^{9}\mathrm{C}$ ; broadcast on site and rake into soil.	Primarily a good soil stabilizer, although seeds are infrequently eaten by waterfowl and muskrats use it for lodge material. Potential pest plant.
Seak rusn <sup>2</sup>	Seeds	Gather seeds when mature (July to September); store in freshwater at $^{9}C_{\rm c}$ broadcast on site and rake into soil.	Seeds eaten by waterfowl primarily.
Beggar's ticks <sup>2</sup>	Seeds	Gather seeds when mature (July to September); store dry at $5^{\circ}$ C; broadcast on site and rake into soil.	Good food source for songbirds, game birds, and chicks. Potential pest.
Big cordgrass <sup>2</sup>	Transplants, seedlings	Dig young plants from natural stands; separate; replant on site at same depth or pot for holding. Germinate seeds and grow seedlings until ready for planting (3-6 mouths).	Excellent soil stabilizer in low, brackish marshes. Salinity prevents this species from competing with smooth cordgrass. Seeds eaten by all kinds of birds; rodents eat young tender foliage. Potential pest
ligelow's glasswort <sup>2</sup>	Cuttings, rootstock	Collect 5-15 cm cuttings of top shoots and broadcast in wet area on the site. If must be stored, cuttings must remain moist. Dig rootstock; replant on site at same depth.	Low tidal area soil stabilizer. Tol- erates fairly high salinities. Easily propagated. Poor source of wildlife foods. Occasionally used by nesting colonial seabirds.
Black mangrove <sup>2</sup>	Seeds, seedlings	Collect seed pods when mature (summer and fall); plant whole pod upright in soil with stem end up and out of the soil. Dig seedlings from natural stand or grow from seed pods.	Excellent soil stabilizer in south Florida. Frequently occurs on dredged material islands and used by colonial nesting wading bird specie. Tolerates to 40 ppt salinity.
lack needlerush <sup>2</sup>	Transplants	Dig clumps; divide into sections with a cutting device; replant on site at same depth or pot for holding.	Good high marsh soil stabilizer. Will not tolerate extended inundation and naturally occurs on tidal creek banks and high spots in the marsh. Seeds eaten by birds and small animals.
ladderworts	Cuttings	Collect quantities of cuttings in buckets of water by scooping plants out of natural stands (in water); transfer to standing water on site.	Good waterfowl food source, especially for dabbling ducks. Potential pest plant in reservoirs.
roadleaf arrowhead 2	Transplants	Dig clumps; separate individuals; replant on site or pot for holding.	Good waterfowl food source; good cover for wildlife; muskrat food.
ulrushes 2	Transplants, tubers	Dig plants; divide; replant on site or pot for holding. Dig tubers; separate; cut off top shoots if present; replant on site or pot for holding.	Excellent waterfowl and songbird food (seeds); foliage eaten by muskrats; used for cover and breeding and nesting by many species.
2 urreed	Transplants	Dig plants; divide; replant on site or pot for holding.	Seeds infrequent source of wildlife food.
uttercups	Cuttings	Collect quantities of cuttings in buckets of water by scooping plants out of natural stand(in water); transfer to standing water on site.	Good waterfowl food source. Potential pest plant in reservoirs.
uttonbush <sup>2</sup>	Transplants, seeds	Dig small plants (large seedlings); transplant to site or pot for holding. Collect seeds in August-September; store seeds in freshwater at 5°C.	Seeds good source of food for water- fowl and other birds, insects, beavers, and muskrats. Provides cover and nesting habitat for birds
2,3 hufa	Tubers	Dig tubers when mature (July-Sept.); separate from other plant material; store moist but not wet at $5^{\circ}\mathrm{C}$ ; broadcast on site and rake into soil. Tubers as very small and may be treated as seeds.	Excellent food source for waterfowl, turkeys, deer, wild boar, songbirds; highly productive plants may produce hundreds of tubers per plant. Seeds, tubers, foliage all relished.
Common reed 2	Transplants, rootstock	Dig plants; divide; replant on site or pot for holding. Dig rootstock; separate into sections with at least one growth point, plant on site.	Used for nesting by songbirds, marsh birds, and waterbirds. Stabilizes soil; rapid growth with tall rank form. Definite pest plant.
Common threesquare <sup>2</sup>	Transplants, tubers	Dig plants, divide, replant on site at same depth or pot for holding. Dig tubers; divide; cut off top smoots if present; replant on site.	Good source of food for waterfowl, muskrats, and nutria. Used for soil stabilization.
elta duckpotato <sup>2,3</sup>	Transplants	Dig plants, separate individuals; replant on site at same depth or pot for holding.	Excellent waterfowl food source; good soil stabilizer; only grows well on fine textured soils.
ock <sup>2</sup>	Seeds	Collect seeds when mature (May to July); store dry at room temperature or less; plant broadcast on site and rake into soil.	Good food source for songbirds(seeds; Hardy species that is good soil stabilizer.
otted smartweed <sup>2</sup>	Seeds, cuttings	Collect seeds; store dry at room temperature or less; broadcast on site and rake into soil. Take cuttings trom natural stand; broadcast on wet area on site (not standing water).	Good soil stabilizer; good cover for ducklings; seeds eaten by waterfowl, muskrats, and deer.

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l Transplants include plugs, groups of individuals, very large seedlings, and large whole plants. 2 Known to occur on dredged material. 3 Commercially available.

Table 4 (Continued)

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
Ouckpotato 2	Transplants	Dig plants; separate individuals; replant on site or pot for holding.	Excellent food source for waterfowl.
Duckweeds <sup>2</sup>	Whole plants	Collect buckets of plants from natural stand in water; place whole plants in standing permanent water on site.	Excellent food source for waterfowl, especially wood ducks. Good cover. In deep south can be pest in standing water that should be kept open.
Eel grass <sup>2</sup>	Transplants	Dig clumps with coring devices; replant in shallow seawater with a minimum of current and wave action.	Good soil stabilizer; food source for diving ducks; provides cover for marine organisms.
European glasswort <sup>2</sup>	Cuttings, rootstock	Take 5-15 cm cuttings from top shoots; broadcast on wet area of site. Dig root- stock; divide into clumps; replant on site at same depth.	Used primarily for soil stabilization. Poor wildlife food use; occasionally used by nesting colonial seabirds.
Fimbristylis <sup>2</sup>	Transplants, seeds	Dig plants; separate individuals; re- plant on site at same depth or pot for holding. Collect seeds when mature (July-Sept.); store dry; broadcast on site and rake into soil.	Fair food source for songbirds and occasionally for waterfowl.
Foxtail grasses <sup>2</sup>	Sprigs, seeds	Dig young plants; replant as sprigs on site at same depth or pot for hold- ing as transplants. Collect seeds when mature (June-Oct, depending upon species); store dry at 3°C; broadcast on site.	Good source of food for most birds, browsers and grazers, rodents. Cover for many wildlife species.
°rankenia	Transplants	Dig plants; separate individuals; re- plant on site at same depth or pot for holding.	Soil stabilizer; poor source of food but some use as cover by wildlife.
Frog bit 2	Seeds	Collect seeds when mature (July-Sept); store dry at room temperatures or less; broadcast on site and rake into soil.	Good seed source for songbirds; cover for small animals and birds; some use for stabilization.
Siant reed <sup>2</sup>	Seeds, transplants	Collect seeds when mature; store dry at room temperatures or less; broadcast on site and rake into soil. Dig plants; divide; replant on site or pot for holding.	Hardy plant; good seed source for wild- life; used for soil stabilization.
Groundsel tree <sup>2</sup>	Seedlings	Dig seedlings in natural stands; at least 0.3-0.5 m is minimum height for best survival; replant on site at same depth or pot for holding.	Excellent cover and nesting/breeding species; used frequently by colonial nesting wading birds on dredged material islands. Poor food source.
dardstem bulrush <sup>2</sup>	Transplants, tubers	Dig plants; divide; replant on site or pot for holding. Dig tubers, divide from other plant material; cut off top shoots if present; plant on site at same depth.	Excellent seed source for birds; hardy species; used by muskrats and for soil stabilization.
Horned pondweed	Cuttings, rootstock	Gather plant material from standing water; place on site in permanent standing water areas. Dig rootstock from shallow water areas where possible; plant intact on site.	dabbling ducks; good sediment stabilizer.
Horsetails 2	Transplants	Dig plants; separate individuals; replant on site or pot for holding.	Poor food source; only use is soil stabilization.
Japanese millet <sup>2,3</sup>	Seeds	Buy seeds from commercial seed source,	Excellent upland and marsh bird food; relished by waterfowl; eaten by turkeys, raccoons and other small animals, deer; Used in game management as food plot sour
Ladysthumb <sup>2</sup>	Cuttings, seeds	Take cuttings 5-15 cm from top shoots; broadcast on wet area of site; rake into soil. Collect seeds when mature; store in freeh water; broadcast on site and rake into soil.	Excellent source of food for waterfowl and upland game and songbirds.
Lizard's tail <sup>2</sup>	Transplants, seeds	Dig plants; separate individuals; re- plant on site or pot for holding. Collect seeds when mature (June-Aug.); store in fresh water; broadcast on site and rake into soil.	Fair food source; used for stabilization in intermittent pond areas.
Lobelia	Transplants	Dig plants; separate individuals; replant on site or pot for holding.	Fair food source; possibly used for stabilization.
Lotus	Seeds, rootstock	Collect seeds when mature (Aug-Oct.); remove from pods; store in fresh water at 5°C; broadcast in shallow water on site. Dig rootstock when water is very low (late summer, fall); plant in shallow water on site.	Fair food source for waterfowl; relished by wild boar (roots); excellent cover for ducklings; potential pest in standing water and shallow reservoirs.
Lyngbye's sedge <sup>2</sup>	Transplants, seeds	Dig plants, separate individuals; replant on site or bot for holding. Collect seeds when mature (July-Sept.); store dry at room temperature; broad- cast on site.	Good food source for waterfowl and other birds; good cover for many species.
Manna grass <sup>2</sup> ( <u>G</u> . <u>acutiflora</u> )	Seeds, sprigs	Collect seeds when mature; store dry st room temperature or less; broad- cast on site. Dig young plants for sprigs; replant on site or pot for holding as transplants.	Excellent seed source for many bird species; foliage eaten by small and large animals; good cover.
Manna grass <sup>2</sup> (G. fluitans)	Seeds, sprigs	Same procedures as above.	Excellent seed source for many bird species and other wildlife, good cover.

(Sheet 2 of 5)

Table 4 (Continued)

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
Marsh elder <sup>2</sup>	Seedlings	Dig seedlings in natural stands near parent plants; separate individuals; replant on site or pot for holding. Seedlings should be 0.3 m tal) minumum.	Excellent cover species for birds and small animals; used by colonial nesting wading birds for nesting substrate. Potential pest plant.
Marsh hibiscus <sup>2</sup>	Seeds, tranplants	Collect seeds when mature (Aug-Oct); store dry at 5°C; plant on site at least 3-5 cm deep. Dig plants, re- plant on site or pot for holding.	Good cover for birds, sunning turtles; grows on banks of streams and ponds, in ditches; good soil stabilizer.
Marsh p <b>epp</b> er <sup>2</sup>	Cuttings, rootstock	Take 5-15 cm cuttings from top shoots; broadcast on wet area of site; rake in- to soil. Dig rootstock; divide into sections; plant in wet area of site.	Excellent seed source for waterfowl and other birds; foliage bitter to browsers; good cover and soil stabilizer
Marsh smartweed <sup>2</sup>	Cuttings, seeds	Cuttings: same as above. Collect seeds when mature (June-Sept); store or plant immediately on site; rake in soil.	Excellent seed source for waterfowl and other birds; good cover for many wildlife species.
Mud plantain <sup>2</sup>	Cuttings	Take 5-15 cm sections from top shoots; replant in mud and wet areas on site taking care to bury portions of cut- tings in soil.	Good soil stabilizer in intermittent ponds and streams.
Nodding smartweed <sup>2</sup>	Seeds	Collect seeds when mature (June-Sept); store in fresh water at $5^{\circ}\mathrm{C}$ ; broadcast on site; rake into soil.	Abundant seed source for upland and waterfowl birds; grows in drier soils tham most smartweeds; potential pest.
Nutsedges <sup>2</sup>	Tubers, rootstock	Dig tubers in late summer and fall; divide; plant on site or pot for using as transplants. Dig rootstock; divide into sections; plant on site, same depth.	Excellent food source for most wild- life, especially chufa and red-rooted sedge; commercially available; poten- tial pest in agronomic areas.
Olney's threesquare <sup>2</sup>	Transplants, tubers	Dig plants, separate individuals; plant on site or pot for holding. Dig tubers; separate; plant on site at same depth.	Excellent food source for waterfowl, muskrats, nutria, small animals. Good soil stabilizer.
Orache <sup>2</sup>	Seeds	Collect seeds when macure; store dry at room temperature or less; broadcast on site; rake into soil.	Good source of seeds for birds and rodents; good soil stabilizer.
Pacific cordgrass <sup>2</sup>	Transplants, sprigs	Dig young plants from edge of marsh; plant at same depth immediately as sprigs, or grow in pots and transplants into site as larger plants. Growing from seeds not recommended as seeds have very low viability rate.	Only low marsh soil stabilizer on west coast that tolerates both high salinities and strong tidal action. Good soil stabilizer; good cover; very slow growth.
Red mangrove <sup>2</sup>	Seeds, seedlings	Collect seed pods when mature; plant whole pod upright in soil with stem end up and out of the soil. Dig seedlings from natural stand or grow from seed pods.	Excellent soil stabilizer in south Florida. Frequently occurs on dredged material islands and used by colonial nesting wading birds for nesting. Tolerates sea-strength salinities.
Reed canary grass <sup>2,3</sup>	Seeds	Buy seeds from commercial seed source.	Excellent soil stabilizer; seeds good wildlife food source; used to dewater and filter waste water.
Reed grass <sup>2</sup>	'Seeds, sprigs	Collect seeds when mature(July-Sept); store dry at 5°C; broadcast on site. Dig young plants to use for sprigs; separate individuals; plant on site or pot for growing as transplants.	Excellent seed source for birds; grazed heavily by mammals and rodents. Good soil stabilizer.
Reed manna grass <sup>2</sup>	Seeds, sprigs	Same procedures as above.	Same value as shown above.
Rice cutgrass <sup>2</sup>	Seeds, sprigs	Collect seeds when mature(May-July); store in fresh water at 5°C; broad- cast on site and rake into soil(in wet areas). Dig young plants; separate individuals; plant on site at same depth in wet areas.	Good seed and foliage food source for many wildlife species, especially waterfoul and marsh birds. Good soil stabilizer of banks.
River bulrush <sup>2</sup>	Rootstock, transplants	Dig rootstock, divide into sections; plant at same depth on site. Dig plants; separate individuals; trans- plant to site or pot for holding.	Used frequently by nesting waterfowl and marsh birds; seed good food source for many wildlife species. Good soil stabilizer.
Rushes <sup>2</sup>	Transplants, rootstock, seeds	Dig plants; separate individuals; transplant to site or pot for holding. Dig rootstock; divide into sections; plant at same depth on site. Collect seeds when mature (July-Oct.); store in fresh water at 5°C; broadcast on site; rake into soil.	This group of plant species excellent for waterfowl, small animal, other birds' food; used as nesting substrate by waterfowl and marsh birds; good soil stabilizers; hardy plants.
Saltgrass <sup>2</sup>	Sprigs; rbizomes	Dig young plants; divide into sections; plant on site or pot for holding. Dig roots; divide rhizomes into small sections; plant on site; rake into soil.	Excellent soil stabilizer; grows well in high brackish marshes; used as lodge material by muskrats; seeds fair food source, but foliage poor source.
Saltmarsh ascer <sup>2</sup>	Seeds	Collect seeds when mature (July- Sept); store dry at room temperature or less; broadcast on site; rake into soil.	Good soil stabilizer in high coastal marshes.
Saltmarsh buirush <sup>2</sup>	Transplants, tubers	Dig plants; divide; plant on site at same depth or pot for holding; Dig tubers; separate tubers; cut off top shoots if present; plant on site	Excellent food source for waterfowl and muskrats, nutria, other small animals. Good cover; good soil stabilizer; used by muskrats for lodge material.
		at same depth. (Continued)	(Sheet 3 of 5)

## Table 4 (Continued)

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
altmarsh cattail 2	Transplants, rootstock	Dig plants; separate individuals; plant on site at same depth. Dig roots; separate; cut off top shoots if present; plant on site.	Good soil stabilizer in brackish soils. Occurs in ditches, intermittent ponds, primarily on coasts. Low food value; fair cover.
altmarsh jaumea	Transplants	Dig plants, separate individuals; plant on site at same depth or pot for holding.	Fair soil stabilizer on west coast in high brackish marshes.
altmeadow cordgrass 2	Transplants, sprigs	Dig plants; divide into clumps; plant on site at same depth or pot for holding. Dig young plants; separate; plant on site at same depth.	Excellent soil stabilizer in brackish marshes; also used in dune stabilization on Atlantic coast. Seed production often poor; low food value; some cover value.
2 aw grass	Sprigs, seeds	Dig young plants; separate individuals; plant on site or pot for holding. Collect seeds when mature (July-Sept); store in fresh water at 5°C; broadcast on site; rake into soil.	Species very site specific; occurs only in south Florida. Will not tolerate high nutrient levels. Good soil stabilizer; good cover; seeds eaten by some wildlife.
ea lavender L. <u>carolinianum</u> )	Seeds	Collect seeds when mature(July-Aug); store dry at 5°C; broadcast on site; rake into soil.	Fair soil stabilizer; cover. Low food value. Some nesting substrate value.
ea lavender L. vulgare)	Seeds	Same procedures as above.	Same values as above.
2 dea ox-eye	Transplants, seeds	Dig plants; separate indivuduals; plant on site at same depth or pot for holding. Collect seed heads when mature (July-Oct); store seeds in fresh water at 5°C; plant on site; rake into soil.	Excellent soil stabilizer; grows in high brackish marshes and on shores. Low food value; some cover and nesting value.
ea purslane 2	Seeds	Collect seeds when mature: store dry at room temperature or less; plant on site; rake into soil.	Fair soil stabilization value; low food value; some seed value as food. Some coveruse.
easide arrowgrass	Transplants	Dig plants, divide into individuals or clumps; plant on site at same depth or pot for holding.	Excellent soil stabilizer in brackish tidal marshes in Pacific northwest; some cover value; low food value.
edge <b>s</b> 2	Transplants, seeds	Dig plants; separate into clumps or individuals; plant on site or pot for holding, Collect seeds when mature (June-Sept); store dry at $5^{\circ}$ C; broadcast on site; rake into soil.	This group of species far-ranging and wid varied. Usually excellent seed value for wildlife; also good cover. Prolific plant
hoal grass <sup>2</sup>	Transplants	Dig plugs with coring device in water at low tide; plant at site immediately at same depth.	Propagules must be stabilized to prevent tidal scour. Good cover value for marine organisms; good sediment stabilizer.
lough grass <sup>2</sup>	Transplants, seeds	Dig plants; divide into clumps or individuals; plant at same depth on site or pot for holding. Collect seeds when mature (July-Sept); store in fresh water at 5°C; broadcast on wet site area.	Good food value for waterfowl and other seed-eating birds; foliage eaten by small animals. Good soil stabilizer.
lough sedge 2	Transplants, seeds	Dig plants; separate into clumps; plant on site at same depth or pot for holding; Collect seeds when mature (July-Oct); store in fresh water at 5°C; broadcast on wet site; rake into soil if necessary.	Execilent wildlife seed source; foliage a eaten. Good soil stabilizer.
2 Smartweeds	Cuttings, seeds	Take 5-15 cm cuttings from top shoots; broadcast on site; rake into soil taking care to cover parts of cuttings (site should be wet). Collect seeds, store in fresh water or dry depending on species; broadcast on site; rake into soil.	Excellent group of plants for wildlife va seeds readily consumed by waterfowl and m other birds and small animals. Good soil stabilizers.
Smooth cordgrass <sup>2,3</sup>	Sprigs, transplants	Dig young plants, separate individuals; plant as sprigs on site or pot to hold as trasplants. Dig transplants from natural marsh or grow from seeds; plant on site taking care to cover all roots.	Best soil stabilizer of low salt marshes east and gulf coasts. Used extensively f stabilization and marsh creation projects gnod cover value; gnod food value. Tolera of tidal inundation for long periods.
Soft rush <sup>2</sup>	Transplants	Dig clumps; divide into sections with cutting device; plant on site at same depth or pot for holding.	Persistent high marsh species; good cover value. Some seed value, but foliage inedi Known pest in pastoral areas.
oftstem bulrush	Rhizomes, transplants	Dig roots; divide rhizomes leaving at at least one growth point on each; plant on site 2-5 cm deep. Dig plants; divide into sections; plant on site or pot for holding.	Excellent soil stabilizer of fresh water coastal and interior marshes. Good seed for wildlife. Used as cover and nesting material by waterfowl and other wildlife.
Couthern duirush	Rhizomes, transplants	Same procedures as above.	Same values as above, except that this sp does not occur as extensively as softstem bulrush, and grows much larger and robust
outhern smartweed <sup>2</sup>	Cuttings, seeds	Take 5-15 cm cuttings from top shoots; broadcast in wet area on site; rake or place cuttings into soil. Collect seeds when mature (July-Oct); store in fresh water at 5°C; broadcast on site; rake into soil.	Excellent food source for waterfowl and m birds. Prolific growth habits; forms den tall stands. Good cover value.
outhern cutgrass 2	Seeds, sprigs	Collect seeds when mature (May-July); store in fresh water at 5°C; broadcast on wet site, rake into soil if necessary.	Excellent seed value for waterfowl and ot birds; foliage eaten by small animals and grazers when tender and young. Good soil
		(Continued)	(Theet 1 of 5)

Table 4 (Concluded)

Species	Recommended propagules	General collection, handling, and planting techniques	Remarks
patterdock 2	Transplants	Dig plants; separate individuals; plant on site at same depth or pot for holding.	Good waterfowl food; good soil stabilizer.
olkerushes 2	Transplants	Dig plants; divide into clumps; plant on site at same depth or pot for holding.	Excellent soil stabilizer; fair waterfowl food.
pirodella <sup>2</sup>	Whole plants	Scoop buckets of plants from standing water; transfer to standing water on site.	Good waterfowl food, especially wood ducks.
orangletop <sup>2</sup>	Seeds, sprigs	Collect seeds when mature(summer,fall); store dry at room temperature or less; broadcast on site; rake into soil. Dig young plants; plant on site as sprigs.	Excellent seed source for wildlife; good soil stabilizer; used for cover.
weet flag	Transplants	Dig plants; divide individuals; plant on site in high marsh at same depth.	Good soil stabilizer; fair wildlife value; potential pest plant.
ufted hairgrass 2	Transplants, sprigs	Dig plants; divide individuals; plant on site or pot for holding. Dig young plants; plant as sprigs on site.	Excellent low marsh species for Pacific north- west; prolific growth; good cover and fair food wildlife value. Good soil stabilizer.
urtle grass <sup>2</sup>	Transplants	Dig clumps with coring device from water at low tide; take care to be sure that at least one growth point is in each clump or will not reproduce: plant on site in the water.	Excellent cover and wildlife value; good cover for marine organisms. Species susceptible to environmental changes by man; rare in some areas
alter's millet 2,3	Seeds	Buy from commercial seed source.	Excellent food value for waterfowl and other wildlife such as raccoons, turkey, deer, muskrats. Good temporary soil stabilizer.
ater hemp <sup>2</sup>	Seeds	Collect seeds when mature; store in fresh water at $5^{\circ}$ C; broadcast in wet area on site; rake into soil if nec.	Good seed source for wildlife; fair soil stabilizer.
ater hyssop	Cuttings, sprigs	Take 5-15 cm cuttings from top shoots; plant in mud on site. Dig young plants; uivide; plant on site in wet area.	Good soil stabilizer; fair wildlife food,
ater lilies <sup>2,3</sup>	Rootstock	Dig tootstock in late summer and fall when water levels are low; transplant to shallow water on site.	Good cover for ducklings; some food value. Excellent sediment stabilizer; potential pest.
atermilfoils	Cuttings	Remove buckets of segments of plants from standing water; transfer to standing water on site.	Excellent dabbling duck food; good cover. Potential pest in standing water and reservoir
ater nymphs	Cuttings	Same procedures as above.	Same value as above.
ater plantain	Transplants	Dig plants; divide individuals; plant on site at same depth.	Good food source for wildlife; fair soil stabilizer.
ater shield	Rootstock	Dig roots in shallow water in late summer and fall; transfer to standing shallow water on site.	Good cover value, good sediment stabilizer.
ater smartweed <sup>2</sup>	Cuttings, seeds	Take 5-15 cm cuttings from top shoots; plant on site in wet area taking care to bury part of cutting. Collect seeds when mature(July-Sept); store in fresh water at 5°C; broadcast on wet site.	Excellent waterfowl food; good cover. Excellent sediment and soil stabilizer.
ater willow	Transplants	Dig plants; divide individuals; plant on site at same depth.	Fair soil stabilizer; low wildlife value.
nite mangrove <sup>2</sup>	Seeds, seedlings	Collect seeds when mature; plant immed- iately on site. Dig seedlings from natural stand; plant on site.	Excellent soil stabilizer; good cover; low food value; used by nesting birds.
idgeongrass <sup>2</sup>	Cuttings	Remove buckets of segments of plants from standing water; transfer to standing water on site.	Excellent waterfowl food; grown by waterfowl managers for attracting waterfowl.
ild celery	Whole plants	Remove whole plants from standing water; transfer to standing water on site.	Excellent cover value; harbors many invertebra fed on by wildlife. Shades out aquatic plants pest in Florida and deep south in some areas.
ild rice <sup>2</sup>	Sprigs, seeds	Dig young plants, divide individuals; plant in shallow water on site. Collect seeds when mature; plant on wet site.	Low tolerance for pollution; must have fine- textured soils in slow-moving water. Excellen wildlife food, good soil stabilizer.
illows <sup>2</sup>	Cuttings	Take 10-30 cm cuttings from dormant trees (winter months, early spring); plant on site with butt end 2/3 in soil.	Excellent soil stabilizer of stream and pond banks. Good cover and food value for songbird Very fast growing, potential pest.
olffias	Whole plants	Remove buckers of plants from standing water; transfer to standing water on site.	Excellent waterfowl food; good cover value.
ellow flag	Transplants, Thizomes	Dig plants; divide individuals; plant in high marsh on site. Dig rhizomes; divide keeping one growth point on each rhizome; plant shallowly on site.	Good soil stabilizer, low wildlife value: showy flowers.

(Concluded)

Sources of information used in the preparation of this table and Table 5 came from unpublished data by the author (Landin) and the following references: Adams (1963), Barbour and Davis (1970), Britton and Brown (1970), Brockman (1968), Broome et al. (1973), Burkhalter et al. (1974), Chabreck (1970), Correll and Johnston (1970), Duncan (1974), Eyles and Robertson (1963), Fassett (1960), Harris and Marshall (1960), Hitchicock (1950), Hotchkiss (1967), Hotchkiss (1970), Kadlee and Wentz (1974), Jona and Lakela (1971), Martin et al. (1951). Mason (1969), Palmisano (1972), Radford et al. (1968), Salyer (1949), Seneca(1972), and Woodhouse et al.(1972).

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Table 5 Selected Marsh Species and Their General Growth Reguirements and Characteristics

Marsh Moisture Conditions

					Ü	Soil Conditions	1 c fono			15	and-	1011		Interior		Wild.	life Valu	ne			Soil
	Regi	- 10		Hd			2	1	Texture		1.	Tidal	Low	Į.	1 1 1 1 1 1	9 0 0	Nesting/		Morphology	Potential	Stabili-
es	id Ni IS	i M loc	Acid	Neutral	Alkaline	Fresh		Saline	S Ine	Coarse wa	Water	LOW HIER	resu	resu	DIACKISH				,		,
Alkali bulrush	`	<b>'</b>		`*	`	`	`		`~	`		`		`	`	`*	`		`		
Arrow arum	1 1	,	`>	٠,	`	`*			`~					~		`	٠,	`	`	`*	`^
(Peltandra virginica)		,	,		`	`				,		`		`		`	٠,		`		`
Beak rush (Rynchospora tracyi)	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	`*	`	`	`	`	`		`*	`~		>		•						,	
Beggar's ticks (Bidens spp.)	, ,	<i>y y</i>	`	`•	`	`	`		`	``		`		`		`*	<b>`</b> >		`	`	`
Big cordgrass (Spartina cynosuroides)	, ,	`	`~	,	`~	`	`		`	`~	•	`				`	``	`	`	`	•
Bigelow's glasswort (Salicornia bigelovii)	, , ,	`	`	`~	`~		`~	`	`	`.	•	`							•		· ·
Black mangrove (Avicennia nitida)	`	`	`	`*	`		`	`~	`	`,	•	_					`*	`~	`*		<b>,</b>
Black needlerush (Juncus roemerianus)	,	`*	`	,	`	`	`		`	`		>					**		`	`	`
	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	1	`	`,	`	`			`	<b>,</b>	`		`			`	,		`	`	
Broadleaf arrowhead (Sagittaria latifolia)	, , ,	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	`~	`,	`	`			`		`		`	`		`	٠,	`	`*		
Broadleaf cattail (Typha latifolia)	·	` · ·	`	`	`	`			`~	`	`,		`			`	`,	`,	· -	` .	· • ·
Bulrushes (Scirpus spp.)	```	,	`.	`	`	`	`	`	`	`	`	<b>,</b>	`~	`	`	`	٠.	`*	``	`	•
Burreed (Sparganium americanum)	<i>&gt; &gt; &gt; &gt;</i>	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	`	`	`~	`~			`	`				`		`,	`*				`>
Buttercups (Ranunculus spp.)	,	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	<b>~</b>	<b>~</b>	`~	`			`	`	`,		`				`~		`*	`	
Burtonbush (Cephalanthus occidentalis)	`	`	`	`	`	`			`	`,	`		`	`		`	٠,	`	`*		•
Chufa (Cyperus esculentus)	`, ',	•	`	`	`~	`			`					`		`>	`,		·*		`~ '
Common reed (Phragmites australis)	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	`	`	`~	`	`		`	`,		`		`	`		<u>,</u>	`	٠ .	`	•
(Scirpus americanus)	, ,	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	`.	`	``	`	`		`~	`*	•	,			`	`	, .	`	•		`* `
Delta duckpotato (Sagittaria platyphylla)	`*	`*	`	`	`	`			`	`			`	`		`	`		•	,	
Docks (Rumex spp.)	<i>'</i>	* * *	`*	`	`*	`			`	`				`		`	`~		`*	`	•
Dotted snartweed (Polygonum punctatum)	,	, ,	`~	`	`*	`			`~	`				`		`	`		,		~a
Duckpotato (Sagittaria cuneata)	`	`	`	`	`	`			`				`	`		`	`		·**		<b>`</b> >
Duckweeds (Lemna spp.)	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	` ·	`.	`		`			`		`,					`	<u> </u>		٠,	`	,
Eel grass (Zostera marina)	```	`	`	`	`		`	`	`	`*	``	_				`	<b>~</b>		`*		· 2

(Continued)
\* SA = south Atlantic; NA = north Atlantic; PF = peninsula Floridn; GC = gulf coasts; WC = west coast; l = interior.

(Sheet 1 of 5)

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	Region*			17	Ś	Soil Conditions	litions		Textu	ŀ	١.	Tidal Low High	Low	Interior	or	X.	dlife 1	Wildlife Value Nesting/	Morphology		Scabili-
Species	I CC I MA I CC I CC I CC		Acid	Neutral	ral Alkaline	Fresh	1	Saline	Fine Coar	l g	Water	Low High	Fresh	Fresh	Bra	P-1	Cover	Breeding	Perennial Annual	Nuisance	
Olney's threesquare	,	`~	`~	`~		`	`		`~			`			`	`	`		`		`
Orache	1 11		`	`	`	`~	`,			`*		`			`		`		,		`
(Atriplex patula)			,				,		,	,		`				`	`		,		`
Pacific cordgrass (Spartina foliosa)		`	`	`~			`	`	`	>		•				`			<b>.</b>		`
Pacific glasswort (Salicornia pacifica)		-	`	`	`		`	`.	`	`		`					`		`*		`
Pacific sedge (Carex obnupta)		٠,	`	`*		`	`		`	`		`*				`~	`	`	`		`
Panic grasses (Panicum spp.)	* * * *	· ·	`	`*	`	`	`	`	`	`*	`	`*	`	`	`*	`	`	`~	·		`*
Paspalum grasses (Paspalum spp.)	* * * *	<b>'</b>	`.	`	`	`	`		`	`		`		`*	`	`	`	`	`		`*
Pennsylvania smartweed (Polygonum pensylvanicum)	111	`	`	`		`			`	`			`	>		`	`		`		`
Pennyworts (Hydrocotyle spp.)	1 1 1	•	`	`	`	`	`		`		`	`*	`>	>	`		`	`*	`*	`	`*
Pickerelweed (Pontedoria cordata)	1111	`	`	`*		`.			`,				`*			`	`	`	`	`	`
Pondweeds (Portomoreton enn.)	* * * *	•	`.	`*	`	`~			`	`	`					`~	`		`~	`	
Prairie cordgrass (Sparring Description Description Description)	1111	`	`~	`	`~	`	`~		`	``		,			`	`	`	`	`		`
Red mangrove (Rhizophora mangle)	`		`	`.	`~			`~	`	`	`	`					`	`	`		`
Reed canary grass	1111	•	`~	`	`	`			`.	`				5		`	`	`	`		`*
Reed grass (Calamagenostis ranadensis)	`	>	`	`	`~	`			`	`				*		`	`	`	`		`
Reed manna grass	, , ,	*	`	`~	`	`			`	`				>		`	`	`	`		`*
Rice cutgrass (Teersia orvzoides)	1111	*	`	`~		`			`	`	`		`			`	`		`		`*
River bulrush (Scirpus fluxiatilis)	`	`*	`~	`	`	`			`	`	`		`	*		`	`	`~	`		`
Rushes (Juncus spp.)	, , , ,	`*	`	`	`~	`	`		`	`		`		->-	`*	`~	`	`>	`	`	`
Saltgrass (Distichlis spicata)	1111	`*	`~	`~	`		`	`	`	`		`				`	`	`	`~		`~
Saltmarsh aster (Aster tenuifolius	, , , ,		`	`	`		`		`	`		`					`		`		`
Saltmarsh bulrush (Scirpus robustus)	1 1 1 1		`	`>	`,		`.	`	`			`			`	`*	`	~	`,		`
Saltmarsh cattail (Typha angustifolia	, , ,		`~	`		`	`		`	`		`		**	`		`	<b>~</b>	`*		`
Saltmarsh jaumea (Jaumea carnosa)		~ <b>x</b>	`~	`					`	`		`					`		`		`
(Sparting Patens)	1 1 1 1		`~	`	`.		`*		`	`		`				`	`	`.	`		`*
									ე)	(Continued)	(p									(Sheef	(Sheer 3 of 5)

(Sheet 3 of 5)

		ŀ								- 1 1	Marsh Moisture Conditions	sture (	ondition	8						
	Region*		품	S	Soil Conditions Salini	itions Salinity		Text					- 1	or	Wild	_	/8u:	Morphology		Stabili-
Species	I SA I I I I I I I I I I I I I I I I I I I	Acid	Neutral	Alkaline	Fresh	Brackish	Saline	Fine Coarse			Low High		Fresh	Brackish	Food	Cover Br	Breeding P	erennial Annual	Nuisance	zation
Saw grass (Cladium jamaicense)	<b>&gt;</b>	`~	`•	`~	`			`	`	•		`	•							
Sea lavender	1111	`	`*	`	`~	`		`	`		`					`		`		`
(Limonium carolinianum)	11111	`^	`~	`	`	``		`	`		`					`	`	`		`
(Limonium vulgare)											,						`	`		`
Sea ox-eye (Borrichia frutescens)	<i>,</i> ,	`*	`~	`			`~	`	`		•					`	`	`		•
Sea purslane	* * * *	`*	`	`~	`.	`		`	`		`					`	`	`		`
Seaside arrowgrass	,		`	`	`*	`	`	`	`		`*	`	`	`		`		`		`
(Triglochin maritima Sedges	11111	`	`	`*	`~	`		`	`		`*	`	`	`	`	`	`	`*		`
(Carex spp.) Shoal grass	111		`>	`*			`	`	`	`					`	`		`		`
(Halodule wrightii) Slough grass	* * *	`	`		`~			`*	`				`			`		.,		`
(Beckmannia syzigachne ) Slough sedge	,	`	`		`			`	`			`*	`		`	`	`	`		`
(Carex trichocarpa)		`	`	`	`			`	`~	`		`	`		`	`	`~	`	`	`
Smartweeds (Polygonum spp.)		•		. `		,	`	. `	. ~		`				`	`	`,	`		`
Smooth cordgrass (Spartina alterniflora)		`	`	`		`	`	•										,		. ,
Soft rush (Juncus effusus)	, , ,	`	`~			`		`					`		`	`	`	`~	`	`
Softstem bulrush	11111	`	`*			`*		`				`	`		`	`	`	`		`
Southern bulrush	1 1 1 1	`	`~			`~		`	`			`	`		`	`	`	`		`
Southern smartweed	, , ,	`	`			`		`	`			`	`		`	`		`		`
Southern cutgrass	1 1 1	`~	`~	`		`s		`				`			`	`	`	`		`
Spatterdock	11111	`*	`			`		`				`	`		`	`		`		`
(Nuphar Luteum) Spikerushes	,,,,,	`	`~	`*	`	`*		`	`		`	•	`	`*	`	`		`		`
(Eleocharis spp.) Spirodella		`~	`.		`			`		`					` `	`		`	`	`
(Spirodella polyrhiza)		,	,		`			,	`				,		`	`,	`	`		>
Sprangletop (Leptochloa fascicularis)	`	`	`*		`			`					•							
Sweet flag (Acorus calamus)	,	`	`		`			`					`			`		`		`
Tufted hairgrass (Deschampsia caespitosa)	,	`*	`	`	`	`		`	`		`	`*	`*			`	`~	`		`~
Turtle grass	, ,		`	`			`*	`	`	`~					`	`		`		`
Walter's millet (Echinochloa Walteri)	1 111	`	`	`*	`			`	`				`		`	`		`		`
								·	(Continued)	(p									į	;

Table 5 (Concluded)

							1,03	Soil Conditions				Crande	Marsh Moisture Conditions	sture (	Conditions	ns	14141	Dilditto Value			1,70
	"	Region*				Ho	1100	Salinity		Toy	Tovinto	100	Tidal	3			111111	Noer ino/	Mornhology	Potential	2011 Stabilia
Species	AZ	PF	I I	Acid	Nen	al Alkaline	re Fresh		Saline		Fine Coarse		Low High			Brackist.	Food Cover		Perennial Annual	Nuisance	zation
Water hemp (Acnida cannabina)	`	`		`	`*		`			`	`			`	`	•	,		`		`
Water hyssop (Bacopa caroliniana)	`	`	`*	`*	`	`	`	`	`	>	`		`		`		`		`		`~
Water lilles (Nymphaea spp.)	`	11111	`*	>	•		`			`	`	`					`*		`	`	
Watermilfoils (Myriophyllum spp.)	`		•	`	`*		`			`	`~	`				•	,		`	`	
Water nymphs (Najas spp.)	•	1111	,	>	`			`		`	`*	`*					`		`	`	
Water plantain (Alisma plantago-aquatica)	``	`*	`	`.	`*		`			`~	`			`	`	•	,		`		>
Water shield (Brasenia schreberi)	`	`		`	`*			`		`	`	`*					`		`	`*	
Water smartweed (Polygonum amphibium)	` `	,	` `	`.	`*		`*			`	`	`		`*	`	•	`		`	`,	`
Water willow (Decodon verticillatus)	``	<i>'</i>		`*	`		`			`.	`.				`		`*		`		`
White mangrove (Laguncularia racemosa)		`~		`	`*	`*		`	`*	`	`*	`*	`				`	`	`		`.
Widgeongrass (Ruppia maritima)	<i>&gt;</i>	``	``		`	`		`		`*	`*	`	`			`	``		`		
Wild celery (Vallisheria americana)	``	``	,	`	`		`	`		`	`	`		`*		`	`		`	`	
Wild rice (Zizania aquatica)	``	,	`	>	`		`*			`	`			`	`*	•	`		`*		`
Willows (Salix spp.)	,	11111	,	`	`*	`*	`*			`	`~	`		`	`	•	`	`	`~	`	`
Wolffias (Wolffia spp.)	,	111	`	`	`*	`*	`			`*		`				`*	`		`		
(Iris versicolor)	`		`	` <b>~</b>	`		`			`*	`*				`*		`		`		`*

#### Table 6

# Plant Species Identified and/or Collected on Dredged Material Islands and Sites by Scientific Name, Authority, and Common Name

## FERNS AND THEIR ALLIES

Athyrium filix - femina (L.) Roth

lady fern

Athyrium thelypteroides (Michx.) Desv.

silvery fern

Botrychium neglectum Wood

grape fern

Botrychium virginianum (L.) Scv.

rattlesnake fern

Dennstaedtia punctilobula (Michx.) Moore

hay-scented fern

Dryopteris austriaca (Jacq.) Woynar

mountain wood fern

Dryopteris thelypteris A. Gray

marsh shield fern

Equisetum arvense L.

field horsetail

Equisetum hyemale L.

scouring rush

Equisetum palustre L.

marsh horsetail

Eurhynchium oreganum (Sull.) Jaeq. and Sauerb.

feather moss

Hylocomium splendens (Hedw.) B.S.G.

stairstep moss

Lorinseria areolata Presl.

net-veined chain fern

Onoclea sensibilis L.

sensitive fern

Polypodium glycyrrhiza D. C. Eat.

licorice fern

Polypodium polypodioides (L.) A. S. Hitchcock

resurrection fern

Polypodium vulgare L.

maiden hair fern

Polystichum acrostichoides (Michx.) Schott

Christmas fern

Polystichum juniperinum (Hedw.)

juniper haircap moss

Polystichum munitum (Kaulf.) Presl.

sword fern

(sheet 1 of 46)

Pteridium aquilinum (L.) Kuhn
bracken fern
Rhytidiadelphus loreus (Hedw.) Warnst.
little shaggy moss

#### GRASSES

Agropyron dasystachyum (Hook.) Vasey thickspike wheatgrass

Agropyron intermedium (Host) Beauv. wheatgrass

Agropyron repens (L.) Beauv. quackgrass

Agropyron trachycaulum Vasey slender wheatgrass

Agrostis alba L.

redtop bentgrass

Agrostis exarata Trin. spike bentgrass

Agrostis gigantea Roth.

redtop

Agrostis hyemalis (Walt.) BSP ticklegrass

Agrostis perennans (Walt.) Tuckerman autumn bentgrass

Agrostis scalera Willd.

hairgrass

Agrostis stolonifera L. running bentgrass

Agrostis tenius Sibth.

Rhode Island bentgrass

Aira caryophylla L. silver hairgrass

Aira elegans Willd.

hairgrass

Aira praecox L.

hairgrass

Ammophila arenaria L.

European beach grass

Ammophila breviligulata Fernald.

American beach grass

Andropogon gerardi Vitm.

big bluestem

Andropogon glomeratus (Walt.) BSP bushy beardgrass

Andropogon scoparius Michx.

little bluestem

Andropogon ternarius Michx. splitbeard bluestem

(sheet 2 of 46)

Andropogon virginicus L.

broomsedge

Aristida intermedia Schribn. & Ball.

prairie three-awn

Aristida longespica Poir.

three-awn

Aristida oligantha Michx.

prairie three-awn

Arundo donax L.

giant reed

Brachiaria platyphylla (Gris.) Nash.

coast arm-grass

Bromus catharticus L.

rescue grass

Bromus inermus Leyss

brome grass

Bromus japonicus Thunb.

Japanese chess

Bromus kalmii A. Gray

wild chess

Bromus mollis L.

soft chess

Bromus secalinus L.

ryebrome

Bromus tectorum L.

cheat grass

Bromus unioloides(Willd.) HBK

Schrader's rescue grass

Bothriochloa ischaemum (L.) Keng. var. songaricus Fisch. & Mey.

King Ranch bluestem

Bothriochloa saccharoides (Sw.) Rybd.

silver bluestem

Calamagrostis canadensis (Michx.) Beauv.

bluejoint reedgrass

Calamagrostis inexpansa Gray var. brevior (Vasey) Steb.

reed bentgrass

Cenchrus ciliaris L.

buffelgrass

Cenchrus echinatus L.

sandspur

Cenchrus incertus M. A. Curtis

coast sandspur

Cenchrus longispinus (Hach.) Fern.

sandbur

Cenchrus pauciflorus Benth.

field sandspur

Cenchrus tribuloides L.

dune sandspur

Chloris cucullata Bisch.

hooded windmill grass

(sheet 3 of 46)

Chloris glauca (Chapm.) Wood fingergrass

Chloris <u>latisquamea</u> Nash.

Nash windmill grass

Chloris petraea Sw.

fingergrass

Cynodon dactylon (L.) Pers.

Dactylis glomerata L. orchard grass

<u>Dactyloctenium aegyptium</u> (L.) Richt. crowfoot grass

<u>Deschampsia</u> <u>caespitosa</u> (L.) Beauv. tufted hairgrass

<u>Digitaria ischaemum</u> (Schreb.) Muhl. smooth crabgrass

<u>Digitaria</u> <u>sanguinalis</u> (L.) Scopoli large crabgrass

<u>Digitaria</u> texana Hitchc.

Texas crabgrass

Distichlis spicata (L.) Greene saltgrass

Enchinochloa colonum (L.) Link jungle rice

Enchinochloa crusgalli (L.) Beauv. barnyard grass

Enchinochloa muricata (Beauv.) Fern.
barnyard grass

Enchinochloa walteri (Pursh) Heller
Walter's millet

Elusine indica (L.) Gaertner goose grass

Elymus canadensis L.

Canadian wild rye

Elymus mollis Trin.

American dune grass

American dune grass

Elymus virginicus L. wild rye

<u>Eragrostis barrelieri</u> Daveau. <u>Mediterranean love grass</u>

Eragrostis capillaris (L.) Nees lacegrass

Eragrostis ciliaris (L.) R. Br. lovegrass

<u>Eragrostis</u> <u>frankii</u> C. A. Mey. Frank's lovegrass

Eragrostis hypnoides (Lam.) BSP smooth creeping lovegrass

Eragrostis oxylepis (Torr.) Torr.
red lovegrass

(sheet 4 of 46)

Eragrostis pectinacea (Michx.) Nees.

purple lovegrass

Eragrostis sessilispica Buckl.

tumble lovegrass

Eragrostis spectabilis (Pursh.) Steud.

purple lovegrass

Eragrostis trichodes (Nutt.) Nash

lovegrass

Festuca arundinacea Schreb.

tall fescue

Festuca bromoides L.

fescue

Festuca myuros L.

rattail fescue

Festuca octoflora Walt.

fescue

Festuca rubra L.

red fescue

Glyceria grandis S. Wats.

American mannagrass

Holcus lanatus L.

common velvetgrass

Hordeum brachyantherum Nevski

meadow barley

Hordeum jubatum L.

foxtail barley

Hordeum pusillum Nutt.

little barley

Hordeum vulgare L.

barley

Hystrix patula (L.) Millsp.

bottlebrush

Leersia lenticularis Michx.

catchfly grass

Leersia oryzoides (L.) Sw.

rice cutgrass

Leersia virginica Willd.

cutgrass

Leptochloa virgata (L.) Beauv.

tropic sprangletop

Leptoloma cognatum (Schult.) Chase

fall witchgrass

Lolium multiflorum Lam.

Italian ryegrass

Lolium perenne L.

perennial ryegrass

Melica mutica Walt.

melic grass

Microstegium vimineum (Trin.) A. Camus.

(sheet 5 of 46)

Monanthochloe <u>littoralis</u> Engelm. shoregrass

Muhlenbergia capillaris (Lam.) Trin. coast muhly

Muhlenbergia frondosa (Poir.) Fern. dropseed

Muhlenbergia racemosa (Michx.) BSP wild timothy

Muhlenbergia rigens (Benth.) Hitchc. deertongue

Oplismenus setarius (Lam.) R. & S.

Panicum amarulum Hitchc. & Chase shoredune panic grass

Panicum amarum Ell.

beach panic grass

Panicum anceps Michx.

beaked panic grass

Panicum angustifolium Ell.

narrowleaf panic grass

Panicum capillare L.

witchgrass

Panicum clandestinum L.

panic grass

Panicum dichotomiflorum Michx.

spreading witchgrass

Panicum lanuginosum Ell.

wooly panic grass

<u>Panicum oligosanthes</u> Schultes few-flowered panic grass

Panicum ovinum Schribn. & Sm.

sheep panic grass

Panicum paludivagum Hitchc.

water panic grass

Panicum repens L.

torpedo grass

Panicum spaerocarpon Ell.

roundseed panic grass

Panicum virgatum L.

switchgrass

Parapholis incurva (L.) C. E. Hubb.

sicklegrass

Paspalum boscianum Fluegge.

bull paspalum

<u>Paspalum ciliatifolium</u> var. <u>stramineum</u> (Hash) Fern. ciliate paspalum

Paspalum distichum L.

knotgrass

Paspalum ditatatum Poir.

dallis grass

(sheet 6 of 46)

Paspalum monostachyum Vasey gulfdune paspalum

Paspalum notatum Flugge bahia grass

Paspalum plicatulum Michx. brownseed paspalum

Paspalum setaceum Michx.

coast paspalum

Paspalum urvillei Steud.

Vasey grass

Paspalum vaginatum Sw.

seashore paspalum

Phalaris arundinacea L.

reed canary grass

Phalaris caroliniana Walt.

Carolina canary grass

Phleum pratense L.

timothy

Phragmites australis (Cav.) Trin. ex Steud.

common reed

Poa annua L.

bluegrass

Poa compressa L.

Canada bluegrass

Poa macantha Vasey

seashore bluegrass

Poa palustris L.

fowl meadowgrass

Poa pratensis L.

Kentucky bluegrass

Polypogon monspeliensis (L.) Desf.

rabbitfoot polypogon

Rhynchelytrum repens (Willd.) C. E. Hubbard

natal grass

Rhynchelytrum roseum (Nees) Stapf. & Hubb.

pink natal grass

Setaria geniculata (Lam.) Beauv.

foxtail barley

Setaria glauca (L.) Beauv.

little foxtail grass

Setaria leucopila (Schribn. & Mey.) K. Schum.

plains bristlegrass

Setaria magna Gris.

giant foxtail grass

Setaria viridis (L.) Beauv.

green bristlegrass

Sorghastrum nutans (L.) Nash.

Indian grass

Sorghum halepense Pers.

Johnson grass

(sheet 7 of 46)

Spartina alterniflora Loisel.

smooth cordgrass

Spartina cynosuroides (L.) Roth

big cordgrass

Spartina foliosa Trin.

Pacific cordgrass

Spartina patens (Ait.) Muhl.

saltmeadow cordgrass

Spartina pectinata Link

prairie cordgrass

Spartina spartinae (Trin.) Hitchc.

gulf cordgrass

Sphenopholus intermedia Rydb.

wedgescale

Sphenopholus obtusata (Michx.) Scribn.

prairie wedgescale

Sporobolus asper (Michx.) Kunth

tall dropseed

Sporobolus cryptandrus (Torr.) Gray

sand dropseed

Sporobolus domingensis (Trin.) Kunth

Florida dropseed

Sporobolus indicus (L.) R. Brown

tropic dropseed

Sporobolus poiretii (R. & S.) Hitchc.

smutgrass

Sporobolus pyramidatus (Lam.) Hitchc.

whorled dropseed

Sporobolus virginicus (L.) Kunth

Virginia dropseed

Stenotaphrum secundatum (Walt.) Kuntze

St. Augustine grass

Tridens albescens (Vasey ) Woot. & Stand1.

white tridens

Triplasis purpurea (Walt.) Chapm.

sand grass

Uniola paniculata L.

sea oats

Zea mays L.

corn

AQUATICS AND LOW MARSH (mostly herbaceous,

and not listed elsewhere)

Alisma plantago - aquatica L.

water plantain

Alisma subcordatum Raf.

water plantain

Alternanthera philoxeroides (Martius) Gris.

alligator weed

(sheet 8 of 46)

Alisma plantago-aquatica L.
water plantain
Alisma subcordatum Raf.
water plantain

Aneilema keisak Hass. marsh dayflower

Bacopa monnieri (L.) Wettst.

water hyssop Batis maritima L.

saltwort

Boltonia asteroides (L.) L'Her. marsh boltonia

Callitriche fassettii L. water starwort

<u>Callitriche</u> <u>heterophylla</u> Pursh. water starwort

<u>Carex albolutescens</u> Schwein. greenish-white sedge

Carex annectans (Bickn.) Bickn. yellow-fruited sedge

Carex brevior (Dewey) Mackenzie sedge

Carex cristatella Britton crested sedge

Carex emoryi Dewey water sedge

Carex <u>hystericina</u> Muhl. porcupine sedge

Carex laeviconica Dewey

hairy-fruited sedge Carex lanuginosa Michx.

woolly sedge

<u>Carex lyngbyei</u> Hornem. <u>Lyngby's sedge</u>

Carex macrocephala

large-headed sedge

<u>Carex</u> <u>muhlenbergii</u> Schk. <u>Muhlenberg's</u> sedge

Carex muskingumensis Schwein.

muskingum sedge

Carex obnupta Bailey
Pacific sedge

Carex phyllomanica W. Boott.

coastal sedge

<u>Carex scoparia</u> Schnk. pointed sedge

Carex siccata Dewey

dry-spiked sedge

Carex stipata Muhl.

awl fruited sedge

(sheet 9 of 46)

Carex tenera Dewey straw sedge Carex tribuloides Wahl. blunt sedge Carex trichocarpa Muhl. slough sedge Carex typhina Michx. cattail sedge Carex vulpinoidea Michx. fox sedge Cladium jamaicensis Crantz saw grass Cyperus aristatus Boeckl. awned nutsedge Cyperus articulatus L. nutsedge Cyperus compressus L. flat nutsedge Cyperus dentatus Torr. toothed cyperus Cyperus erythrorhizos Muhl. red-rooted sedge Cyperus esculentus L. chufa Cyperus filicinis Vahl. Nuttall's cyperus Cyperus inflexus Muhl. awned cyperus

Cyperus iria L. yellow cyperus Cyperus lingularis L.

nutsedge Cyperus lupulinus L. slender-stemmed cyperus

Cyperus odoratus L. coarse cyperus

Cyperus ovularis (Michx.) Torr.

globe nutsedge

Cyperus planifolius L.

nutsedge

Cyperus polystachyos var. texanis (Torrey) Fernald flat nutsedge

Cyperus rotundus L. purple nutsedge

Cyperus schweinitzii Torr. Schweinitz's cyperus

Cyperus strigosus L.

straw-colored cyperus

Cyperus uniflorus L. oneflower nutsedge

(sheet 10 of 46)

Cyperus virens Michx. nutsedge

Cyperus vivularis Kunth. shinging cyperus

Dichromena colorata (L.) Hitchcock

white-topped umbrella grass

Eleocharis acicularis (L.) R & S
least spike rush

Eleocharis <u>baldwinii</u> (Torrey) Chap.

Baldwin spike rush

Eleocharis calva Torrey spike rush

Eleocharis halophila Fern. & Brackett spike rush

Eleocharis montevidensis Kunth sand spike rush

Eleocharis obtusa (Willd.) Schultes blunt spike rush

Eleocharis palustris (L.) R. & S. creeping spike rush

Eleocharis parvala (R. & S.) Link. dwarf spike rush

Fimbristylis castanea (Michx.) Vahl. fimbry

Fimbristylis spadicea (L.) Vahl. fimbristylis

<u>Hydrocotyle</u> <u>bonariensis</u> Lam.

water pennywort

<u>Hydrocotyle verticillata</u> Thunberg pennywort

Jaumea carnosa (Less.) Gray jaumea

Juncus balticus Willd.

Baltic rush

Juncus bufonis L.

toad rush

Juncus coriaceus Mackenzie rush

Juncus <u>dudleyi</u> Wiegand Dudley's rush

Juncus effusus L. soft rush

Juncus gerardi Lois black rush

Juncus marginatus Rostk.

grassleaf rush Juncus nodosus L.

knotted rush

Juncus roemerianus Scheele black needlerush

(sheet 11 of 46)

Juncus tenius Willd. slender rush

Jussiaea repens L.

water primrose

Lilaeopsis occidentalis Coult. & Rose

lilaeopsis

Limonium carolinianum (Walt.) Britton

sea lavender

Limonium nashii Small

sea lavender

Limonium vulgare Miller

sea lavender

Lycopus americanus Muhl.

water horehound

Lycopus rubellus Moench.

water horehound

Najas gracillima (A. Br.) Magnus

naiad

Peltandra virginica (L.) Kunth.

arrow arum

Polygonum amphibium Michx.

water smartweed

<u>Polygonum</u> <u>argyrocoleon</u> Steudel ex Kunze

smartweed
Polygonum aviculare L.

prostrate knotweed

Polygonum coccineum Muhl. ex Willd.

marsh smartweed

Polygonum densiflorum Meisn.

southern smartweed

Polygonum erectum L.

erect smartweed

Polygonum hydropiper (L.) Opiz

marsh pepper

Polygonum lapathifolium L.

nodding smartweed

Polygonum paranychia Cham. & Schlect.

black smartweed

Polygonum persicaria L.

lady's thumb

Polygonum pennsylvanicum L.

Pennsylvania smartweed

Polygonum punctatum Ell.

dotted smartweed

Polygonum ramosissimum Michx.

bushy knotweed

Polygonum scandens L.

climbing false buckwheat

Pontederia cordata L.

pickerelweed

(sheet 12 of 46)

Ptilimnium capillaceum (Michx.) Raf.

water ptilimnium

Rorippa islandica var. hispida (Desv.) B. & A. marsh cress

Ruppia maritima L. widgeongrass

Sabatia stellaris Pursh.

sabatia

Sagittaria latifolia Willd.

broadleaf arrowhead

Sagittaria rigida Pursh.

narrowleaf arrowhead

Sagittaria spatulata (J. G. Smith) Buch. arrowhead

Salicornia bigelowii Torr.
Bigelow's glasswort

Salicornia europaea L.

European glasswort

Salicornia virginica L. woody glasswort

Salsola kali L.

Scirpus acutus Muhl. handstem bulrush

Scirpus americanus Britt.

common threesquare Scirpus atrovirens Muhl.

dark green bulrush

Scirpus californicus (C. A. Meyer) Britton southern bulrush

Scirpus cyperinus (L.) Kunth

wool grass

Scirpus fluviatilis (Torr.) A. Gray river bulrush

Scirpus maritimus L.

saltmarsh bulrush

<u>Scirpus olneyi</u> Gray

Olney's threesquare

Scirpus robustus Pursh.

saltmarsh bulrush

Scirpus validus Vahl. softstem bulrush

Sium suave Walt.

water parsnip

Syringodium filiforme Kuetz

manatee grass

Triglochin maritima L.

seaside arrowgrass

Triglochin striata R. & P. southern arrowgrass

(sheet 13 of 46)

Typha angustifolia L.
narrowleaf cattail
Typha domingensis Persoon
tule cattail

Typha <u>latifolia</u> L. broadleaf cattail

Ulva <u>lactuca</u> L. sea lettuce

Zostera marina L. eel grass

### **HERBS**

Abronia latifolia Esch. yellow abronia

Abrus precatorious L. crab's eye

Abutilon theosprasti Medic velvetleaf

Acalypha radians Torr. round copperleaf

Acalypha rhombiodea Raf. three-seeded mercury

Achillia millefolium L.

yarrow

Acnida altissima Riddell water hemp

Acnida tomariscina (Nutt.) Wood water hemp

Agalinis <u>fasciculata</u> (Ell.) Raf. fascicled agalinis

Agalinis heterophylla (Nutt.) Small prairie agalinis

Agalinis maritima (Raf.) Raf. seaside agalinis

Agalinis purpurea (L.) Pennell. purple agalinis

Agoseris heteroplylla (Nutt.) Greene false dandelion

Aloe vera (L.) Webb. true aloe

Alyssum alyssoides L.

alyssum

Amaranthus berlandieri (Moq.) Uline. & Bray. Berlandier amaranth

Amaranthus cannabinis (L.) J. D. Sauer water amaranth

Amaranthus hybridus L. common pigweed

(sheet 14 of 46)

Amaranthus palmeri Wats.

Palmer amaranth

Amaranthus retroflexus L.

green pigweed

Amaranthus spinosus L.

spiny pigweed

Amaranthus tamariscinus Nutt.

water amaranth

Amaranthus tuberculatus (Moq.) Sauer

water amaranth

Amaranthus viridis Desf.

slender amaranth

Ambrosia artemisiifolia L.

common ragweed

Ambrosia bidentata Michx.

southern ragweed

Ambrosia chamissonis (Less.) Greene

silver bursage

Ambrosia psilostachya DC.

western ragweed

Ambrosia trifida L.

giant ragweed

Amorpha fruticosa L.

false indigo

Amorpha herbacea Walt.

lead plant

Anagallis arvensis L.

scarlet pimpernel

Anaphalis margaritacea (L.) B.& H.

pearly everlasting

Anemone canadensis L.

anemone

Angelica lucida L.

sea-watch

Anthemis cotula L.

mayweed

Aphanostephus kidderi Blake

kidder daisy

Aphanostephus okirrhobosis (DC.) Trel.

lazy daisy

Apios americana Medic

groundnut

Apium leptophyllm (Pers.) F. V. Muell.

slimlobe celery

Apocynum cannabinum L.

Indian hemp

Aquilegia canadeneis L.

wild columbine

Arctrium minus Schk.

common burdock

(sheet 15 of 46)

Arenaria peploides L.

seabeach purslane

Arisaema dracontium (L.) Schott.

green dragon

Artemisia absinthium L.

common wormwood

Artemisia biennis Willd.

wormwood

Artemisia caudata Michx.

tall wormwood

Artemisia ludoviciana Nutt.

western mugwort

Artemisia serrata Nutt.

wormwood

Asclepias incarnata L.

swamp milkweed

Asclepias lanceolata Walt.

coast milkweed

Asclepias oenotheroides Cham. & Schlecht

milkweed

Asclepias syriaca L.

common milkweed

Asclepias verticillata L.

whorled milkweed

Asparagus officinalis L.

garden asparagus

Asplenium platyneuron (L.) D. C. Eat.

ebony spleenwort

Aster ericoides L.

white heath aster

Aster novae-angliae L.

New England aster

Aster ontarionsis Wieg.

aster

Aster pilosus Willd.

frost aster

Aster simplex Willd.

aste

Aster spinosus Benth.

Mexican aster

Aster sublatus Michx.

annual saltmarsh aster

Aster subspicatus Nees

Douglas's aster

Aster subulatus Michx.

aster

Aster tenuifolius L.

saltmarsh aster

Aster vimineus Lam.

aster

(sheet 16 of 46)

Astragulus canadensis L. milk vetch

Astragulus <u>leptocarpus</u> T. & G. slimpod milk vetch

Atriplex arenaria Nutt.

beach orache

Atriplex patula L.

shore orache

Barbarea vulgaris R. Br. common wintercress

Bassia hirsuta L.

European bassia

Berteroa incana (L.) DC. hoary alyssum

Bidens arnua L.

nodding beggartick

Bidens comosa (Gray) Wieg.

leafy-tracted tickseed

Bidens connata Muhl. swamp beggartick

Bidens frondosa L. beggartick

Bidens pilosa L. beggartick

Bidens vulgata Greene tall beggartick

Boehmeria cylindrica (L.) Swartz bog-hemp

Boerhaavia coccinea Mill. red spiderling

Boerhaavia diffusa L.

spiderling

Borrichia frutescens (L.) DC. sea ox-eye

Brassica juncea (L.) Cosson Chinese mustard

Brassica nigra (L.) Koch black mustard

Buchnera floridana Gand. Florida bluehearts

<u>Caesalpinia</u> <u>crista</u> L.

gray nicker bean

<u>Cakile endentula</u> (Bigel.) Hook

American sea rocket

Cakile fusiformis Greene sea rocket

<u>Cakile harperi</u> Small

sea rocket

Cakile maritima Scop.

European sea rocket

(sheet 17 of 46)

Callirhoe involucrata (Torr.) Gray low peppermallow Caltha biflora DC. marsh marigold Calylophus australis Towner & Raven Campanula americana L. tall bellflower Campanula rotundifolia L. harebell Canavalia maritima (Aubl.) Thouars. June bean Canavalia rosea L. bay bean Cannabis sativa L. wild hemp Capsella bursa-pastoris (L.) Medic pickpocket Capsicum annuum L. bird pepper Cardimine pennsylvanica Muhl. bitter cress Cardionema racesissima (Weinm.) Nels. sandmat Carduus lanceolatus L. bull thistle Carduus smallii (Britt.) Ahles thistle Cardures nutans L. musk thistle Cassia fasciculata Michx. partridge pea Cassia occidentalis L. coffee senna Catharanthus roseus (L.) G. Don. Madacascar periwinkle Celastrus scandens L. bittersweet Centaurea americana Nutt. thornless thistle Centaurea maculosa Lam. spotted star-thistle Cerastium brachypodium (Engelm.) Robins. mouse ear Cerastium vulgatum L. mouse-ear chickweed Chamaesyce blodgetti (Engelm. ex Hitchc.) Small spurge

Chamaesyce hirta (L.) Mill.

spurge

(sheet 18 of 46)

Chenopodium albescens Small pale goosefoot Chenopodium album L. lambsquarters Chenopodium ambrosioides L. Mexican tea Cichorium intybus L. common chicory Circuta bulbifera L. water hemlock Cirsium arvense (L.) Scop. Canada thistle Cirsium vulgare (Savi) Tenore bull thistle Clitoria ternatea L. blue pea Cnidoscalus stimulosus (Michx.) Engelm. & Gray tread softly Commelina communis L. Asian dayflower Commelina diffusa Burm. dayflower Commelina erecta L. dayflower Commelina virginica L. Virginia dayflower Conioselinum pacificum (Wats.) Coult. & Rose hemlock parsley Conyza canadensis (L.) Cronq. horseweed Coreopsis cardaminaefolia (DC.) Nutt. Manzanilla coreopsis Coreopsis lanceolata L. coreopsis Coreopsis tinctoria Nutt. plains coreopsis Corydalis micrantha (Engelm.) Gray scambled eggs Cotula coronopifolia L. brass button Crepsis capillaris (L.) Walls. hawksbeard Crinum americanum L. string lily Croptilon divaricatum (Nutt.) Raf.

slender goldenweed Crotalaria mucronata Desv.

rattlebox

Croton capitatus Michx. woolly croton

(sheet 19 of 46)

Croton glandulosus L. glandular croton

Croton punctatus Jacq.

croton

Cryptotaenia canadensis (L.) DC. honewort

Crysanthemum leucanthemum L.

field daisy

Cycloloma atriplicifolium (Spreng.) Coult.

winged pigweed

Cynanchum angustifolium Pers.

swallow wort

Dahbergia ecastophyllum (L.) Benth.

dahlbergia

Dalea emarginata (T. & G.) Shinners

dalea

Dalea nana Torr.

dwarf dalea

Daubentonia punicea (Cav.) DC.

pea

Daucus carota L.

Queen Anne's lace

Desmanthus illinoensis (Michx.) MacM.

Illinois bundleflower

Desmanthus obtusus Wats.

bluntpod bundleflower

Desmanthus virgatus (L.) Willd.

bundleflower

Desmodium glabellum (Michx.) DC.

tick trefoil

Dichondra carolinensis Michx.

false pennywort

Digitalis purpurea L.

fox glove

Diodia teres Walt.

poor joe

Dioscorea bulbifera L.

air jam

Dondonaea viscosa (L.) Jacq.

varnish leaf

Dyssodia tenuiloba (DC.) Robins

bristleleaf dogweed

Echinocactus texansis Hopffer

horse crippler cactus

Echinocystis lobata (Michx.) T. & G.

wild cucumber

Eclipta alba (L.) Hass.

yerba

Elephantopus coelestinum L.

elephant's foot

(sheet 20 of 46)

Elephantopus nudatus Gray elephant's foot

Epilobium angustifolium L. great willow-herb

Epilobium glandulosum Lehm. willow-herb

Epilobium watsonii Barbey

Watson's willow-herb

Erechtites hieracifolia L. Raf. fireweed

Erigiron annuus L. Pers. daisy fleabane

Erigeon canadensis L. horseweed fleabane

Erigeron myrionactus Small Corpus Christi fleabane

Erigeron philadelphicus L. fleabane

Erigeron pusillus (Nutt.) Ahles small fleabane

Erigeron quercifolius Lam. daisy fleabane

Erigeron strigosus Muhl. daisy fleabane

Erysemum cheiranthoides L. wormseed mustard

Erythrina herbacea L.

coral bean

Eupatorium album L.

white thoroughwort

Eupatorium capillifolium (Lam.) Small dog fennel

Eupatorium coelestinum L. ageratum

Eupatorium compositifolium Walt. dog fennel

Eupatorium hyssopifolium L. thoroughwort

Eupatorium maculatum L. joe-pye-weed

Eupatorium perfoliatum L. boneset

Eupatorium rugosum Houtt.

white snakeroot

Eupatorium serotinum Michx. late flowering thoroughwort

Euphorbia dentata Michx.

spurge

Euphorbia glyptosperma Engelm. ridgeseed spurge

(sheet 21 of 46)

Euphorbia maculata L.

spotted spurge

Euphorbia polygonifolia L.

spurge

Euphorbia serpens HBK

spurge

Euphorbia supina Raf.

milk purslane

Eustoma exaltatum (L.) G. Don.

tall prairie-gentian

Euthamia leptocephala (T. & G.) Greene

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Flaveria floridana J. R. Johnston

Florida flaveria

<u>Frageria</u> <u>virginiana</u> Duchesne

broadpetal strawberry

Froelichia floridana (Nutt.) Moq.

frolichia

Gaillardia pulchella Foug.

Indian basket

Galactia macreei M. A. Curtis

galactia

Galinsoga ciliata (Raf.) Blake

galinsoga

Galium aparine L.

cleavers

Galium boreale L.

northern bedstraw

Galium hispidulum Michx.

coast bedstraw

Galium obtusum Bigel.

marsh bedstraw

Galium palustre L.

bedstraw

Galium tinctorium L.

marsh cleavers

Galium trifidum L.

small bedstraw

Gaura angustifolia Michx.

gaura

Gaura brachycarpa Small

plains gaura

Geranium carolinianum L.

Carolina geranium

Geranium robertianum L.

herb-robert

Geranium texanum (Trel.) Heller

Texas geranium

Gerardia maritima Raf.

seaside gerardia

(sheet 22 of 46)

Gerardia tenuifolia Vahl.

Bessey's gerardia

Geum laciniatum Murr.
avens

Geum virginianum L. rough avens

Glecoma hederacea L. creeping charlie

Gnaphalium falcatum Lam. cudweed

Gnaphalium obtusifolium L.

rabbit tobacco

Gnaphalium pensilvanicum Willd.

Gnaphalium purpueum L. purple cudweed

Gratiola neglecta Torrey hedge hyssop

Grindelia integrifolia (Greene) Cronq. resinweed

Habenaria dilatata (Pursh.) Hook. white bog-orchard

Hackelia virginiana (L.) I. M. Johnston stickweed

Hedeoma hispida Pursh.
mock pennyroyal

Hedyotis humifusa Gray.

mat bluets

Hedyotis nigricans (Lam.) Fosb.

prairie bluets

<u>Hedyotis subviscosa</u> (Gray) Shinners nodding bluets

Helenium amarum (Raf.) Rock.
bitter sneezeweed

<u>Helenium</u> <u>autumnale</u> L.

sneezeweed

Helianthus annuus L. common sunflower

<u>Helianthus</u> <u>argophyllus</u> T. & G.

silverleaf sunflower

<u>Helianthus</u> <u>debilis</u> Nutt.

sunflower

<u>Heliopsis</u> <u>helianthoides</u> L. Sweet ox-eye

<u>Heliotropium angiospermum</u> Murray heliotrope

Heliotropium curassavicum L. seaside heliotrope

Heliotropium polyphyelum Lehmann
heliotrope

(sheet 23 of 46)

Hemerocallis fulva L.

daylily

Hemicarpa micrantha (Vahl.) Pox

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Hepatica acutiloba DC.

liverleaf

Heracleum lanatum Michx.

cow parsnip

Heracleum maximum Bartram

masterwort

Heterotheca pilosa (Nutt.) Shinners

soft aster

<u>Heterotheca</u> <u>subaxillaris</u> (Lam.) Britt. & Rusby

camphorweed

Hibiscus palustris L.

swamp rose mallow

Hieracium aurantiacum L.

orange hawkweed

Honkenya peploides (L.) Ehrb.

seabeach sandwort

Hudsonia tomentosa Nutt.

beach heather

Hymenocallis latifolia (Mill.) Roem.

spider lily

Hypochaeris radicata L.

spotted cats-ear

Ibervillea tripartita (Naud.) Greene

globe berry

Impatiens biflora Walt.

touch-me-not

Impatiens capensis Meerb.

spotted touch-me-not

Impatiens noli-tangere L.

touch-me-not

Indigofera minata Ort.

scarlet pea

Iresine celosia L.

Florida bloodleaf

Iresine rhizomatosa Stan.

bloodleaf

Iris pseudacorus L.

yellow flag

Iris virginica L.

blue flag

Kalenchoe pinnata Pers.

cathedral bells

Kostelatzkya virginica Presl. ex Gray

saltmarsh mallow

Lactuca biennis (Moench) Fern.

wild lettuce

(sheet 24 of 46)

Lactuca canadensis L.

wild blue lettuce

Lactuca floridana (L.) Gaertner

wild lettuce

Lactuca graminifolia Michx.

wild lettuce

Lactuca hirsuta Muhl.

wild lettuce

Lactuca scariola L.

wild lettuce

Laportea canadensis (L.) Wedd.

wood nettle

Lathyrus japonicus Willd.

beach pea

Lechea maritima Leggett

maritime pinweed

Leonurus cardiaca L.

common motherwort

Lepidium austrinum Small

southern peppergrass

Lepidium campestre (L.) R. Br.

cow cress

Lepidium densiflorum Schrad.

peppergrass

Lepidium virginicum L.

Virginia peppergrass

Leucauna leucocephala (Lam.) de Wit.

popinac

Limnosciadium pumilum (Englm. & Gray) Math. & Const.

\_\_\_\_

Linaria canadensis (L.) DuMont

toadflax

Linaria vulgaris Hill

butter and eggs

Lindernia dubia (L.) Pennell

flase pimpernel

Linum alatum (Small) Winkl.

flax

Lippia lanceolata Michx.

frogfruit

Lippia nodiflora (L.) Michx.

spatulate-leaved frogfruit

Lobelia cardinalis L.

cardinal flower

Lobelia siphilitica L.

great lobelia

Lotus corniculatus L.

birdsfoot trefoil

<u>Lupinus littoralis</u> Dougl.

seashore lupine

(sheet 25 of 46)

Ludwigia palustris (L.) Ell.

false loosestrife

Lycharis alba Mill.

white campion

Lycopus americanus Muhl.

water horehound

Lycopus rubellus Moench.

water horehound

Lycopus virginicus L.

water horehound

Lycium carolinianum Walt.

Carolina wolfberry

Lygodesmia aphylla (Nutt.) DC.

flowering straws

Lysichitum americanum Hult. and St. John

skunk cabbage

Lysimachia ciliata L.

fringed loosestrife

Lysimachia hybrida Michx.

lance-leafed loosestrife

Lysimachia terrestris (L.) BSP

swamp loosestrife

Lythrum alatum Pursh.

loosestrife

Lythrum lanceolatum Ell.

loosestrife

Lythrum lineare L.

saltmarsh loosestrife

Lythrum salicaria L.

spiked loosestrife

Machaeranthera phyllocephala (DC.) Shinners

camphor daisy

Malvaviscus arboreus Cav.

mallow

Mammellaria gummifera Engel.

nipple head cactus

Matelea decipiens (Alex.) Woodson

\_\_\_\_

Matricaria matricarioides (Less.) Porter

pineapple weed

Maurandya antirrhiniflora Willd.

snapdragon vine

Medicago lupulina L.

black medic

Medicago polymorpha L.

bur clover

Meliotus albus Lam.

white sweet clover

Meliotus indicus (L.) All.

sweet clover

(sheet 26 of 46)

Meliotus officinalis (L.) Lam.

yellow sweet clover

Melothria pendula L.

creeping cucumber

Mentha arvensis L.

field mint

Mikania scandens (L.) Willd.

climbing hempweed

Mimulus guttatus DC.

marsh monkey flower

Mimulus ringens L.

monkey flower

Mirabilis nyctaginea (Michx.) MacM.

four o'clock

Modiola caroliniana (L.) G.Don.

Carolina mallow

Mollugo verticillata L.

carpetweed

Momordica charantia L.

wild balsam apple

Monarda punctata L.

horsemint

Montia sibirica (L.) Howell

candyflower

Myosoton aquaticum (L.) Moench.

giant chickweed

Mysotis laxa Lehm.

forget-me-not

Nepeta cataria L.

catnip

Neptunia lutea Leavenworth

neptunia

Neptunia pubescens Benth.

tropical neptunia

Nothoscordum bivalve (L.) Britton

crow poison

Oenanthe sarmentosa Presl.

Pacific water parsley

Oenothera biennis L.

evening primrose

Oenothera drummondii Hook.

beach evening primrose

Oenothera fruticosa L.

evening primrose

Oenothera hookeri T. & G.

Hooker's evening primrose

Oenothera humifusa Nutt.

seaside evening primrose

Oenothera laciniata Hill.

cut-leaved evening primrose

(sheet 27 of 46)

Oenothera parviflora L.

evening primrose

Oenothera perennis L.

sundrops

Oenothera rhombipetata Nutt.

rhombic evening primrose

Oenothera speciosa Nutt.

showy primrose

Opuntia compressa (Salisbury) MacB.

east coast prickly pear cactus

Opuntia humifusa Raf.

prickly pear cactus

Opuntia leptocaulis DC.

desert Christmas cactus

Opuntia lindheimeri Engelm.

Texas prickly pear cactus

Opuntia stricta Haw.

Florida prickly pear cactus

Orthocarpus castillejoides Benth.

paintbrush owl-clover

Oxalis dillenii Jacq.

wood sorrel

Oxalis europaea Jord.

lady's sorrel

Oxalis stricta L.

yellow wood sorrel

Palafoxia texana DC.

Texas palafoxia

Parentucellia viscosa (L.) Car.

yellow parentucellia

Parietaria floridana Nutt.

Florida pellitory

Parietara pensylvanica Muhl.

hammerwort

Parietaria praetermissa Hinton

pellitory

Parkinsonia aculeata L.

retama

Passiflora lutea L.

passion flower

Pastinaca sativa L.

parsnip

Penthorum sediodes L.

ditch stonecrop

Philoxerus vermicularis (L.) R. Br.

saltweed

Phlox glabriflora (Brand.) Whiteh.

Rio Grande phlox

Phyllanthus carolinensis Walt.

Carolina phyllantus

(sheet 28 of 46)

<u>Phyllanthus polygonoides</u> Spreng. knotweed leafflower

Phylla incisa Small

Texas frogfruit

Physalis pubescens L.

downy ground cherry

Physalis viscosa (M.A. Curtis) Waterfall beach ground cherry

Physostagia formosior Lunell false dragonhead

Phytolacca americana L.

pokeberry

<u>Pilea pumila</u> (L.) Gray clearweed

<u>Plantago aristata Michx.</u> buckthorn plantain

Plantago hookeriana Fisch. & Mey.

tallow plantain

<u>Plantago hybrida</u> Bart.

<u>Plantago lanceolata</u> L. English plantain

Plantago major L.

common plantain

Plantago maritima L. sea plantain

<u>Plantago</u> <u>rhodosperma</u> Dcne. red-seeded plantain

<u>Plantago</u> <u>rugellia</u> Dcne.

Pluchea camphorata (L.) DC.
marsh fleabane

Pluchea purpurascens (Sw.) DC. canela

Polanisia dodecandra (L.) DC. clammyweed

Polanisia graveolens Raf.

clammyweed

Polygala alba Nutt.

white milkwort

Polygonatum canaliculatum (Muhl.) Pursh.
Solomon's seal

Polygonella articulata (L.) Meisn. jointweed

Polyaenia <u>nuttallii</u> DC.

prairie parsley

Portulaca mundula I.M. Johnston chisme

Portulaca oleracea L. purslane

(sheet 29 of 46)

Portulaca pilosa L. pink purslane Potentilla anserina L. silverweed Potentilla argentea L. silvery cinquefoil Potentilla arguta Pursh. tall cinquefoil Potentilla norvegica L. five-finger cinquefoil Potentilla pacifica Howell Pacific marsh cinquefoil Psoralea rhombifolia T. & G. roundleaf scurfpea Pyrrhopappus carolinianus (Walt.) DC. false dandelion Ranunculus abortivus L. kidnewleaf buttercup Ranunculus pennsylvanicus L. bristly crowfoot Ranunculus repens L. creeping buttercup Ratibida penundularis (T. & G.) Barnh. naked prairie-coneflower Rhynchosia americana (Mill.) C. Metz. American snoutbean Rhynchosia texana T. &. G. Texas snoutbean Richardia brasiliensis (Moq.) Gomez richardia Ricinus communis L. castor bean Rivina humilis L. rouge plant Rorippa islandica (Desv.) B. & A. marsh cress Rorippa palustris (L.) Bass. yellow cress Rorippa teres (Michx.) Stuckey yellow cress Rudbeckia hirta L. brown-eyed susan Rumex acetosa L. kitchen sorrel Rumex actosella L. sheep sorrel Rumex crispus L.

curly dock

sorrel

Rumex hastatulus Baldwin ex Ell.

(sheet 30 of 46)

Rumex mexicanus Meisn.
willow-leafed dock
Rumex orbiculatus Gray
water dock

Rumex patientia L. patience dock

Rumex persicaroides L. yellow dock

Rumex pulcher L. fiddle dock

Rumex salicifolius Weinm. willow dock

Rumex verticillatus L. swamp dock

Sabatia arenicola Greenm. sand rose-gentian

Sabatia campestris Nutt. rose pink

Sabatia stellaris Pursh.

Samolus ebractealus HBK coast brookweed

Sanicula canadensis L. snakeroot

Sanicula marilandica L. snakeroot

Saponaria officinalis L. bouncing betty

Scaevola plummieri (L.) Vahl.)

Schrankia lalidens (Small) K. Schum.
Karnes sensitivebriar

Schrankia microphylla (Small) Macbr. sensitivebriar

Scrophularia californica Cham & Schlecht.
California figwort

Scrophularia marilandica L. figwort

Scutellaria drummondii Benth. drummond skullcap

Scutellaria epilobiifolia A. Hamilton skullcap

Scutellaria galericulata L.

marsh skullcap

Scutellaria latiflora L. mad-dog skullcap

Scutellaria muriculata Ept. skullcap

Sedum sarmentosum Bunge stonecrop

(sheet 31 of 46)

Senecio glabellus Poir. golden ragwort Senecio imparipinnatus Klatt.

ragwort

Senecio jacobaea L. tansy ragwort

Senecio vulgaris L.

old-man-in-the-spring

Sesbania drummondii (Rydb.) Cory rattle bean

Sesbania exaltata (Raf.) Rydberg ex sensitivebriar

Sesuvium maritimum (Walt.) BSP sea purslane

Sesuvium portulacastrum L. sea purslane

Sicyos angulatus L.

bur cucumber Sida acuta Burm.

false mallow

Sida ciliaris L. false mallow

Sida <u>lindheimeri</u> Engelm. & Gray showy false mallow

Sida rhombifolia L.

arrowleaf false mallow

Sida spinosa L.

prickly false mallow

Silene antvirhina L. sleepy catchfly

Silene cserei Baumg.

catchfly

Silene noctiflora L.

night-flowering catchfly

Sisymbrium altissumum L. tumble mustard

Sisyrinchium biforme Bickn.

wiry blue-eye grass

Smilacina racemosa (L.) Desf. false Solomon's seal

Smilacina stellata (L.) Desf. false Solomon's seal

Solanum americanum Mill.

American nightshade

Solanum carolinense L.

horse nettle

Solanum dulcamara L. nightshade

Solanum gracile Link nightshade

(sheet 32 of 46)

Solanum nigrum L.

black nightshade

Solanum triquetrum Cav.

Texas nightshade

Solidago altissima L.

tall goldenrod

Solidago canadensis L.

meadow goldenrod

Solidago gigantea Ait.

giant goldenrod

Solidago racemosa Greene

goldenrod

Solidago rugosa Mill.

goldenrod

Solidago sempervirens L.

seaside goldenrod

Solidago tenuifolia Pursh.

goldenrod

Sonchus arvensis L.

field sowthistle

Sonchus asper (L.) Hill

prickly sowthistle

Sonchus oleraceus L.

common sowthistle

Specularia perfoliata (L.) A. DC.

Venus' looking glass

Spergularia canadensis (Persh.) G. Don

Canadian sand spurry

Spergularia echinosperma Calak

sand spurry

Spergularia macrotheca (Hornem.) Heynh.

beach sand spurry

Spergularia marina (L.) Griseb.

saltmarsh sand spurry

Spergularia platensis (St.- Hill & A. Juss.)

sand spurry

Spilanthes americana (Walt.) A. H. Moore

ladies' tresses

Spilanthes ovalis Lindl.

lesser ladies' tresses

Spilanthes vernalis Engelm. & Gray

spring ladies' tresses

Stachys crenata Raf.

shade betony

Stachys hispida Pursh.

rough hedge nettle

Stachys tenuifolia Willd.

smooth hedge nettle

Stellaria calycantha (Ledeb.) Bong

northern silene

(sheet 33 of 46)

Stellaria media (L.) Cyrillo

common chickweed

Stellaria prostrata Baldwin

prostrate starwort

Stemodia tomentosa (Mill.) Greenm. & Thomps.

woolly stemodia

Stipulicida setacea Michx.

pinweed

Strophostyles helvola (L.) Ell.

trailing wild bean

Stylosanthes viscosa Sw.

pencil flower

Suaeda linearis (Ell.) Moq.

sea blite

Suaeda maritima DuMont

sea blite

Tanacetum douglasii DC.

northern dune tansy

Taroxacum officinale Weber

common dandelion

Teucrium canadense L.

germander

Teucrium cubense Jacq.

small coast germander

Thelesperma filifolium (Hook.) Gray

green-thread

Thelypteris normalis (C.Chr.) Moxley

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Thespesia populnea (L.) Sol. ex Correa.

seaside mahoe

Thlaspi arvense L.

field pennycress

Tillandsia usneoides L.

Spanish moss

Trandescantia hirsutiflora Bush

hairy flower spiderwort

Trandescantia ohiensis Raf.

spiderwort

Trepocarpus arethusae Nutt.

nuttall

Trichostema suffrutescens Kearney

blue curl

Trifolium agrarium L.

yellow clover

Trifolium hybridum L.

Alsike clover

Trifolium pratense L.

red clover

Trifolium repens L.

white clover

(sheet 34 of 46)

Trifolium wormskjoldii Lehm.
springbark clover

Ulex europaeus L. gorse

<u>Urena lobata</u> L.

Caesar weed

Urtica chamaedryoides Pursh.

heartleaf nettle

Urtica dioica L.

stinging nettle

Valerianella stenocarpa Mill.

corn salad

Verbascum thapsus L.

common mullein

<u>Verbena</u> <u>bonaniensis</u> L.

vervain

<u>Verbena</u> <u>brasiliensis</u> Vellozo

vervain

<u>Verbena</u> <u>halei</u> Small

Texas vervain

Verbena hastata L.

blue vervain

Verbena scabra Vahl.

vervain

<u>Veronia</u> <u>altissima</u> Nutt.

ironweed

Veronica americana Schwein.

American brooklime

Veronica peregrina L.

purslane speedwell

Vicia americana Muhl.

vetch

Vicia angustifolia Richard

vetch

Vicia gigantea Hook.

giant vetch

<u>Vicia</u> <u>leavenworthii</u> T. &.G.

Leavenworth vetch

Vicia ludoviciana Nutt.

deer pea vetch

Vicia sativa L.

common vetch

<u>Vigna</u> <u>luteola</u> (Jacq.) Benth.

cow pea

<u>Viola</u> sp.

violet

Vulpia octoflora (Walt.) Rhdb.

vulpia

Wedelia tribobata (L.) Hitchcock

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## Xanthium strumarium L. cocklebur

## VINES

Ampelopis arborea (L.) Rusby peppervine

Ampelopis cordata Michx.

simple-leaved peppervine

Berchemia scandens (Hill) Trelease supplejack

Campsis radicans Seem.

trumpet creeper

Celastrus orbiculatus Thunb.

bittersweet

<u>Cissus incisa</u> (Nutt.) Des Maulins marine vine

Convolvulus sepium L.

hedge bindweed

Convolvulus soldanella L.

Pacific morning glory

Cuscuta cuspidata Engelm.

cusp dodder

Cuscuta obtusiflora HBK.

common dodder

Cuscuta pentagona Engelm.

field dodder

Cynanchum palustre (Pursh.) Heller climbing milkweed

Ficus aurea Nutt.

strangler fig

Ipomoea alba L.

vine milkweed

Ipomoea pes-caprae (L.) R. Br.

railroad vine

Ipomoea sagittata Lam.

saltmarsh morning glory

Ipomoea stolonifera (Cyr.) Gmel.

beach morning glory

Ipomoea trichocarpa Ell.

sharppod morning glory

Ipomoea trilobata L.

wild morning glory

<u>Ipomoea</u> <u>tuba</u> (Schlect.) G. Don

moonflower

Lonicera japonica Thung.

Japanese honeysuckle

Menispermum canadense L.

Canada moonseed

Menispermum carolinum L.

Carolina moonseed

(sheet 36 of 46)

<u>Parthenocissus</u> <u>inserta</u> (Kern.) K. Fritsch. woodbine

Parthenocissus quinquefolia (L.) Planchon Virginia creeper

Rhus radicans L. poison ivy

Smilax auriculata Walt.

wild bamboo

Smilax bona-nox L.

fringed catbriar

Smilax hispida Muhl.

catbriar

Smilax rotundifolia L.

common greenbriar

<u>Vitus</u> <u>aestivalis</u> Michx. <u>summer grape</u>

Vitus <u>labrusca</u> L. fox grape

Vitus riparia Michx. riverbank grape

Vitus rotundifolia Michx. muscadine

Vitus vulpina L. frost grape

## SHRUBS AND SMALL TREES

Acacia smallii Isely.

Texas huisache

Agave americana L. century plant

Agave americana var. marginata Trel. marginated century plant

Alnus rubra Borg. red alder

Alnus serrulata (Ait.) Willd. alder

Alnus sinuata (Reg.) Rydb.

<u>Amelanchier</u> <u>canadensis</u> (L.) Medic. serviceberry

Amelanchier laevis Wieg.

juneberry

Aralia spinosa L.

devil's walking stick

Arbutus menziesii Pursh.

arbutus

Atriplex polycarpa (Torr.) Wats.

shrub orache

Avicennia germinans (L.) Stern.

black mangrove

(sheet 37 of 46)

Baccharis angustifolia Michx.

groundsel gree

Baccharis neglecta Britton
Roosevelt groundsel

Baptisia leucophaea Nutt.

wild indigo

Berberis thunbergii DC.

barberry

Betula occidentalis Hook.

water birch

Callicarpa americana L.

American beautyberry

<u>Catalpa</u> <u>speciosa</u> Warder

catalpa

Cephalanthus occidentalis L.

buttonbush

Chicocca alba (L.) Hitchcock

snowberry

Citrus sinensis (L.) Osbeck

citrus

Conocarpus erecta L.

buttonwood

Cornus amomum Mill.

swamp dogwood

Cornus drummondii C. A. Meyer

rough-leaved dogwood

Cornus florida (L.) Raf.

flowering dogwood

Cornus nuttallii Aud. ext. & G.

Pacific dogwood

Cornus obliqua Raf.

silky dogwood

Cornus racemosa Lam.

gray dogwood

Cornus rugosa Lam.

round-leaved dogwood

Cornus stolonifera Michx.

red osier dogwood

Crataegus fabellata (Bosc.) Koch.

hawthorn

Cytisus scoparius (L.) Link

Scotch broom

Eleagnus angustifolia L.

Russian olive

Eleagnus pungens Thunb.

thorny olive

Eleagnus umbellata Thunb.

autumn olive

Ficus carica L.

fig

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Forestiera acuminata (Michx.) Poir.

swamp privet

Forestiera angustifolia Torrey

desert olive

Forestiera segregata (Jacq.) Krug & Urban

Florida privet

Gaultheria shallon Pursh.

sala1

Hibiscus moscheutos L.

marsh hibiscus

Hypericum drummondii (Grev. & Hook.) T. &. G.

nits and lice

Hypericum gentianoides BSP

orange grass

Hypericum hypericoides (L.) Crantz

St. John's wort

Hypericum mutilum L.

dwarf St. John's wort

Hypericum perforatum L.

common St. John's wort

<u>Ilex cassine</u> L.

dahoon

Ilex decidua Walt.

possumhaw

Ilex glabra (L.) A. Gray

gallberry

Ilex vomitoria Ait.

yaupon

Iva angustifolia DC.

narrowleaf marsh elder

Iva frutescens L.

marsh elder

Iva imbricata Walt.

seacoast marsh elder

Juniperus communis L.

common juniper

Juniperus horizontalis Moench.

creeping juniper

Laguncularis racemosa Gaertn.

white mangrove

Lantana camara L.

shrub verbena

Lantana horrida HBK

Texas lantana

Lantana involucrata L.

lantana

Lantana ovatifolia Britton

lantana

<u>Lindera benzoin</u> Blume

spicebush

(sheet 39 of 46)

Lonicera x bella Zabel honeysuckle

Lonicera involucrata (Richards) Banks bearberry honeysuckle

Lonicera tartarica L.

Tartarian honeysuckle

Malus angustifolia Michx. crabapple

Melia <u>azedarach</u> L. chinaberry tree

Morus <u>alba</u> L. white mulberry

Myrica cerifera L. wax myrtle

Myrica pensylvanica Loisel.

bayberry

Myricanthes fragrans (Sw.) McVaugh naked wood

Nerium oleander L. oleander

Ostrya virginiana (Mill.) Koch eastern hophornbeam

Phoradendron flavescens (Pursh.) Nutt.
American mistletoe

Physocarpus capitatus (Pursh.) Kuntze
Pacific nine-bark

Physocarpus opulifolius (L.) Maxim.

Pinus clausa (Chapm.) Vasey sand pine

Pinus virginiana Mill. shore pine

<u>Poinsettia heterophylla</u> (L.) Kl. & Garke. painted leaf poinsettia

Prosopis glandulosa Torrey honey mesquite

Prunus americana Marsh.

American plum

Prunus caroliniana Ait.

cherry laurel

Prunus maritima Wang.

beach plum

Prunus pumila L.

sand cherry

Prunus virginiana L.

common chokecherry

<u>Psidium</u> <u>guajave</u> L.

guava

Quercus acutissima Carruthers sawtooth oak

(sheet 40 of 46)

Quercus <u>laevis</u> Walt. turkey oak

Rhamnus purshiana DC.
cascara buckthorn

Rhizophora mangle L. red mangrove

Rhus copallina L. shining sumac

Rhus glabra L. smooth sumac

Rhus radicans L. shrub poison ivy

Rhus typhina L. staghorn sumac

Ribes americanum Mill.
wild black currant

Ribes lacustre (Pursh.) Poir. swamp gooseberry

Ribes sanguineum Pursh. red currant

Rosa acicularis Lindl. prickly rose

Rosa blanda Ait.
meadow rose

Rosa bracteata Wendl.
Macartney rose

Rosa carolina L.
Carolina rose

Rosa gymnocarpa Nutt. baldhip rose

Rosa multiflora Thunberg multiflora rose

Rosa palustris Marsh. swamp rose

Rosa rugosa Thunb. wild rose

Rosa virginiana Mill.
wild Virginia rose

Rubus argutus Link blackberry

Rubus bifrons Vest blackberry

Rubus cuneifolius Pursh. sand blackberry

Rubus discolor Weihe & Nees Himalayan blackberry

Rubus flagellaris L. northern dewberry

Rubus idaeus var. canadensis Richardson raspberry

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Rubus laciniatus Willd. evergreen blackberry

Rubus leucodermis Dougl. black raspberry

Rubus occidentalis L. black raspberry

Rubus spectabilis Pursh. salmonberry

Rubus trivalis Michx. southern dewberry

Rubus ursinus Cham. Schlecht blackberry

Sabal palmetto (Walt.) Lodd. ex Schult. cabbage palm

Salix alba L. white willow

Salix amygdaloides Anders peachleaf willow

Salix fragiles L. crack willow

Salix hastata L. halberd-leaved willow

Salix hookeriana Barratt Hooker willow

Salix interior Rowlee sandbar willow

Salix lasiandra Benth. Pacific willow

Salix nigra (L.) Marsh. black willow

Salix rigida Muhl. willow

Salix scouleriana Barratt Scouler willow

Sambucus callicarpa Greene elderberry

Sambucus canadensis L. American elderberry

Sambucus pubens Michx. red elderberry

Sambucus racemosa L.

coast red elderberry

Sambucus simpsonii Rehd. Florida elderberry

Sapium sebiferum (L.) Roxb. Chinese tallow tree

Schinus terebinthifolius Reddi. Brazilian peppertree

Shepheria canadensis (L.) Nutt. buffaloberry

(sheet 42 of 46)

Sophora tomentosa L.

yellow sophora

Sorbus americana Marsh.

American mountain-ash

Sorbus aucuparia L.

European mountain-ash

Sorbus sitchensis Roem.

Sitka mountain-ash

Spiraea tomentosa L.

spiraea

Symphoricarpos albus (L.) Blake

common snowberry

Tamarisk africana Poir.

athel

Tamarisk chinensis Lour.

Chinese tamarisk

Tamarisk gallica L.

tamarisk

Tamarisk parviflora

saltcedar

Terminalia catappa L.

Indian almond

Vaccineum corymbosum L.

highbush blueberry

Vaccinium myrsinites Lam.

ground blueberry

Viburnum edule (Michx.) Raf.

highbush cranberry

Yucca aloifolia L.

aloe

Yucca pendula Groen1.

yucca

Yucca treculeana Carr

Spanish dagger

Zanthoxylum clava-herculis L.

toothache tree

## LARGE TREES

Acer negundo L.

boxelder

Acer rubrum L.

red maple

Acer saccharum Marsh.

sugar maple

Acer saccharinum L.

silver maple

Aitanthus altissima (Mill.) Swingle

tree of heaven

Betula nigra L.

river birch

(sheet 43 of 46)

Carya cordiformis (Wang.) K. Koch bitternut hickory

Casuarina equisetifolia Forst.

Australian pine

Celtis <u>laevigata</u> Willd.

hackberry

Celtis lindheimeri Engelm.

Lindheimer hackberry

Celtis occidentalis L.

sugarberry

Celtis pallida Torrey

desert hackberry

Chamaecyparis lawsoniana Parl.

Port Orford cedar

Diospyros virginiana L.

persimmon

Fagus grandifolia Ehrh.

American beech

Fraxinus americana L.

white ash

Fraxinus latifolia Benth.

Oregon ash

Fraxinus pennyslvanica Marsh.

green ash

Gleditsia tricanthos L.

honeylocust

Juglans nigra L.

black walnut

Juniperus silicicola (Small) Bailey

southern red cedar

Juniperus virginiana L.

eastern red cedar

Liquidambar styraciflua L.

sweetgum

Liriodendron tulipifera L.

tulip poplar

Morus rubra L.

red mulberry

Persea borbonia (L.) Sprengel

redbay

Phoenix canariensis Chap.

ornamental data palm

Phoenix dactylifera L.

data palm

Phoenix reclinata L.

reclinata palm

Picea sitchensis (Bong) Carr

Sitka spruce

Pinus contorta Dougl.

lodgepole pine

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Pinus elliottii Engelm. slash pine

Pinus nigra

Austrian pine

<u>Pinus palustris Mill.</u> longleaf pine

Pinus resinosa Ait. red pine

Pinus taeda L.

loblolly pine

Platanus occidentalis L.

American sycamore

Populus balsamifera L. balsam poplar

Populus deltoides Marsh.

eastern cottonwood

Populus grandidentata Michx. bigtooth aspen

Populus tremuloides Michx. quaking aspen

Populus trichocarpa T. &. G. black cottonwood

Prunus serotina Ehrh.

black cherry

Pseudotsuga menziisii (Mirb.) Franco
Douglas fir

Quercus bicolor Willd. swamp white oak

Quercus <u>laurifolia</u> Michx. <u>laurel oak</u>

Quercus macrocarpa Michx.

bur oak

Quercus nigra L.

water oak

Quercus nuttallii Palmer

Nuttall oak

Quercus palustris DuRoi.
pin oak

Quercus phellos L. willow oak

Quercus rubra L. red oak

Quercus shumardii Buckl.
Shumard oak

Quercus velutina Lam. black oak

Quercus virginiana Miller live oak

Robinia pseudo-acacia L. black locust

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Sassafras albidum Nutt.

sassafras

Tamarisk ramosissima Ledeb.

saltcedar

Taxodium distichum (L.) Richard

bald cypress

Thuja occidentalis L.

northern white cedar

Tilia americana L.

basswood

Tsuga heterophylla (Raf.) Sarg.

western hemlock

Ulmus americana L.

American elm

Ulmus rubra Muhl.

red elm

Washingtonia robusta Wendl.

Mexican windmill palm

In accordance with letter from DAEN-RDC, DAEN-ASI dated 22 July 1977, Subject: Facsimile Catalog Cards for Laboratory Technical Publications, a facsimile catalog card in Library of Congress MARC format is reproduced below.

Landin, Mary C

Annotated tables of vegetation growing on dredged material throughout the United States / by Mary C. Landin. Vicksburg, Miss.: U. S. Waterways Experiment Station; Springfield, Va.: available from National Technical Information Service, 1978.

155 p.: ill.; 27 cm. (Miscellaneous paper - U. S. Army Engineer Waterways Experiment Station; D-78-7)
Prepared for Office, Chief of Engineers, U. S. Army, Washington, D. C., under DMRP Work Unit No. 4F05.
References: p. 6-9.

1. Dredged material. 2. Plants (Botany). 3. Tables (Data).
4. Vegetation. 5. Vegetation establishment. 6. Waste disposal sites. I. United States. Army. Corps of Engineers. II. Series: United States. Waterways Experiment Station, Vicksburg, Miss. Miscellaneous paper; D-78-7.
TA7.W34m no.D-78-7